

THE ARCHITECT & BUILDING NEWS

IN THIS ISSUE


- CHURCH HILL MEMORIAL GARDEN
- L.C.C. SCHOOL, BESSEMER GRANGE,
CAMBERWELL
- INFORMATION DIGEST

MAY 22, 1952


VOL. 201

NO. 4353

ONE SHILLING WEEKLY



LIKE BRITAIN...
NORWAY CHOOSES
BRADY
REGD.



"Brady" is a by-word in most countries now. This installation of three gear-operated steel shutters, incorporating a wicket gate, was supplied to An. Thorbjornsen of Oslo, to give maximum clearance and accessibility

at loading points. Whenever it's a question of moving or storing goods and vehicles — quickly, safely, economically — you'll find the Brady organisation has a straight-forward answer.

We shutter



the world

BRADY
REGD.

G. BRADY & CO. LTD. • ANCOATS • MANCHESTER 4 • Phone: COLlyhurst 2797/8
LONDON: New Islington Works, Park Royal N.W.10 BIRMINGHAM: Rectory Park Road, Sheldon 26
CANADA: G. BRADY & CO. (CANADA) LTD., 1405, Bishop Street, Montreal 25.

Manufacturers of Brady Hand and Power Operated Lifts

THE NEW
WARRY
"TROJAN"
(FIRST-CLASS WORKER)

MOBILE PLATFORM HOIST

PROV. PAT. No. 26594

10 CWT. NET PLATFORM CAPACITY

Petrol or Electric Drive

CAN BE ERECTED OR DISMANTLED IN 10 SECONDS

EFFICIENT PLATFORM SAFETY CATCH

EASILY ADJUSTABLE PLATFORM LIMIT STOP

FULLY MOBILE AT 19FT LIFT

EXTENSIBLE TO 80FT LIFT

PRICE
19FT
LIFT

£275

EX WORKS

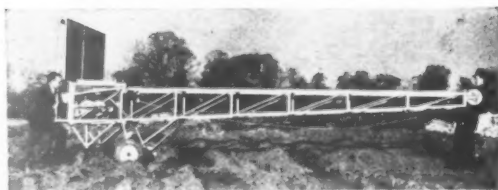
Hire Purchase Arranged

FULL SPECIFICATION AND ILLUSTRATED
CATALOGUE GLADLY SENT ON REQUEST

WARRY PATENT BUILDING EQUIPMENT
COMPANY LTD.

(Dept. A.) FAGGS ROAD, FELTHAM, MIDDLESEX

Telephone: Feltham 4057/8



EASILY MOVED OVER ROUGHEST GROUND.



PERFECT STABILITY UNSUPPORTED.

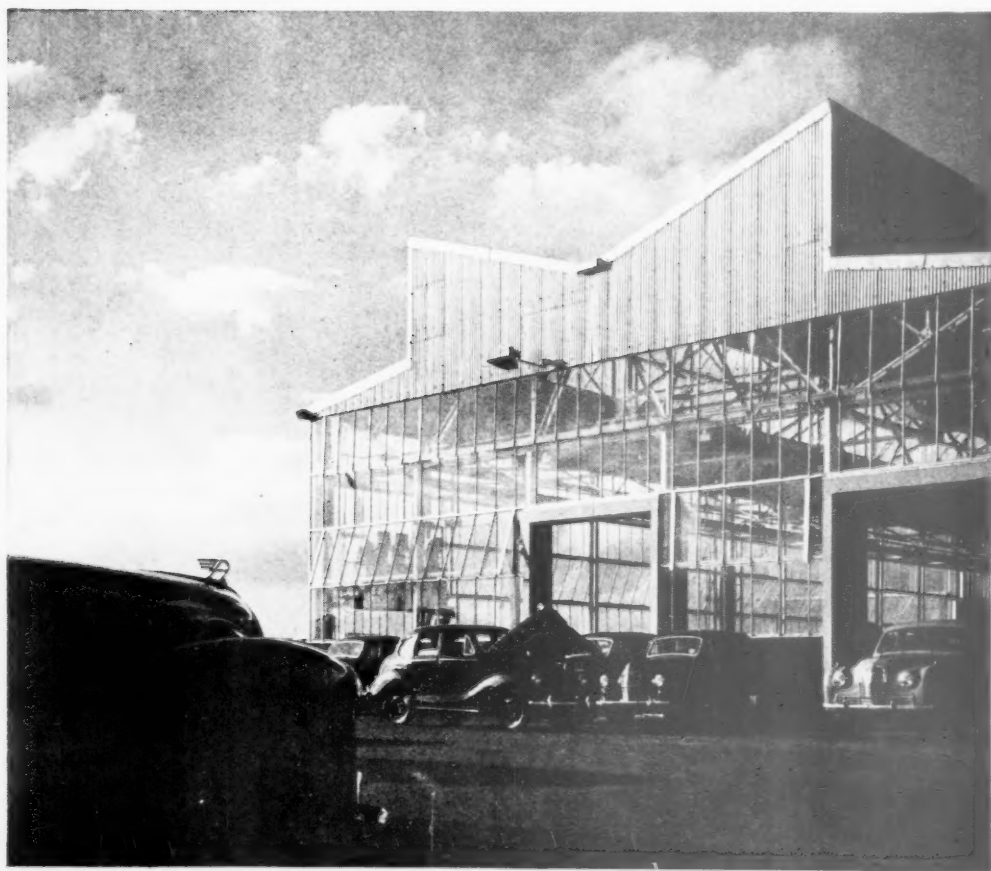


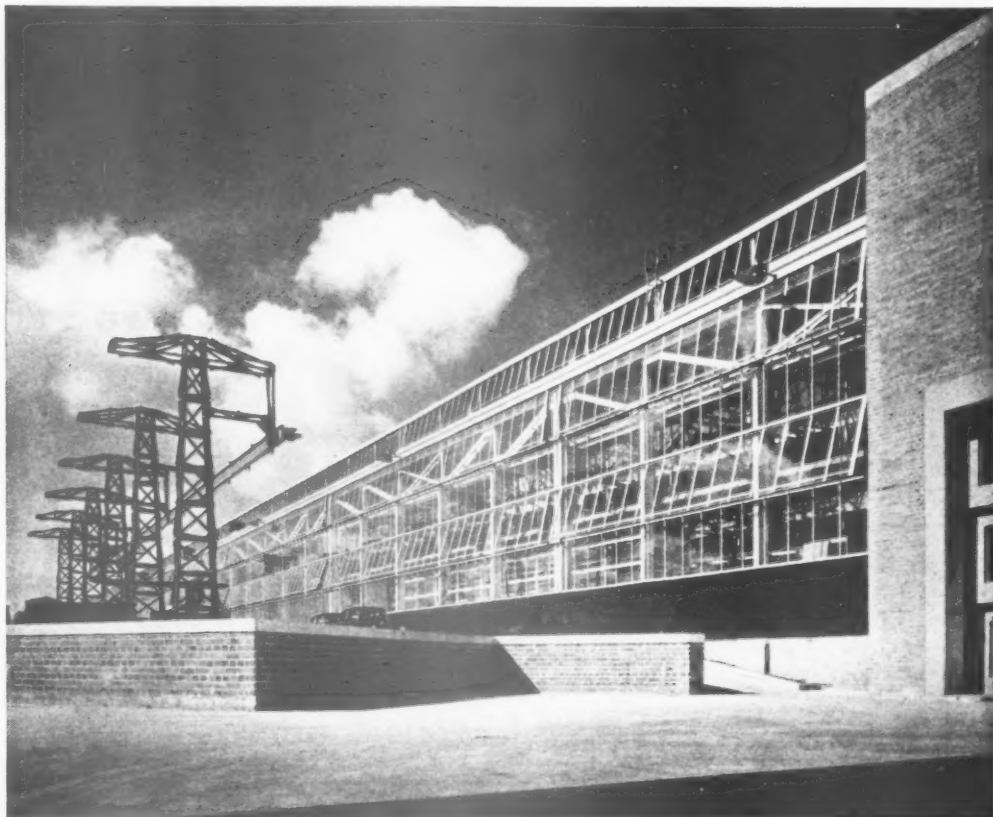
SPEEDILY ERECTED BY TWO MEN.

GLASS WALLS *in the new Austin Extensions...*

A FRESH EXAMPLE OF THE GRACE AND EFFICIENCY OF ALUMINEX PATENT GLAZING

Our pictures show Aluminex Patent Glazing to advantage and the æsthetic effect of the 900 ft. glass wall is a tribute to architect C. Howard Crane's use of this medium in his new Car Assembly Building at the Austin Factory, Longbridge. Strong enough to resist the full force of Atlantic gales, durable enough, like Piccadilly's Eros, to stand the wear of years, light enough to be handled with ease, clean cut and attractive in its lines — Aluminex is a working material for architects to conjure with.





WALLS OF GLASS

The 900 x 20ft. wall of glass can be dismantled and re-assembled when the time comes for further extensions. This is only one of the important advantages offered by Aluminex.

TELEFLEX GEARING

Opening lights 5ft. deep by 58ft. run into two tiers along the whole length of the building. Each pair of adjacent lights is easily operated by Teleflex gear from one manual control at floor level, 116ft. of sidewall opening in 15 seconds. Teleflex—a new development in cable gearing—was originally used for turret operation on bombers and battleships in the last war. It is a classic example of how the swords of war become the ploughshares of industry.

VERTICAL MONITOR LIGHTS

The vertical monitor lights in the roof are arranged so as to give even

daylighting throughout the building and contain continuous opening lights exactly similar to those in the sidewall.

56,000 SQUARE FEET OF GLASS

Both the sidewalls and the monitors are glazed with 32 ounce clear sheet glass, which, combined with the delicate aluminium tracery of Aluminex Patent Glazing, has produced a delightful effect of airiness and spaciousness. In all, 56,000 square feet of glass were used in the cladding of this building.

USE OF ALUMINEX WEATHERING MEMBERS

Only Aluminex can produce the clean effect at the junction of the trim of glass in the sidewall. These firm modern lines are due to the Aluminex horizontal weathering members.

In Steelworks—Power and Railway Stations—Aircraft Hangars—Hospitals—Art Galleries—Aluminex displays its versatility and provides the architect with a potent instrument. Spaciousness, beauty, ease of construction and economy, all reside in Aluminex.

THE ALUMINEX DIVISION OF

WILLIAMS & WILLIAMS LTD

RELIANCE WORKS · CHESTER

Architect and Engineer: C. HOWARD CRANE, A.I.A. Main Contractors: W. J. WHITTALL & SON LTD



FOR THE LATEST ADDITION
TO
LEEDS UNIVERSITY

the very best was needed — so

NORTH BRITISH RUBBER FLOORING

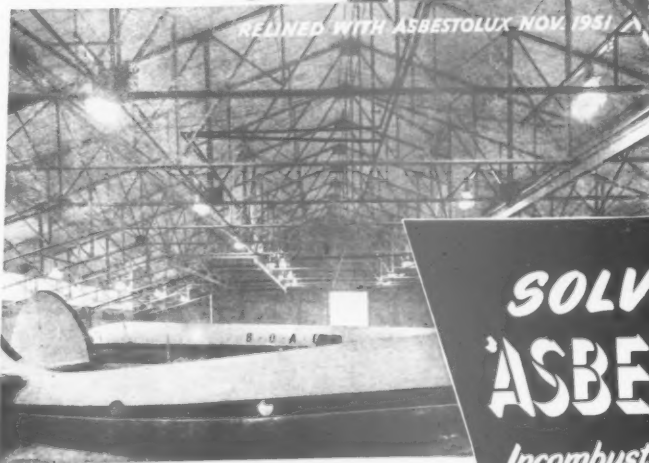
was specified

In thousands of Britain's largest buildings our rubber flooring has been laid. We undertake the laying, if desired, thus relieving architect and builder of trouble and responsibility.

THE NORTH BRITISH RUBBER CO., LTD., EDINBURGH, LONDON & BRANCHES



THE BURNING QUESTION!



Photographs by courtesy of the Ministry of Civil Aviation.
Thermal Insulation Lining by W. H. Heywood & Co. Ltd.

SOLVED BY 'ASBESTOLUX'

Incombustible Insulation Board

NO. 3 HANGAR AT LONDON AIRPORT was gutted by fire last year, and the top photograph was taken immediately after the fire was extinguished. As the lower illustration shows, it has now been re-lined with the incombustible insulation board, ASBESTOLUX, each 8' x 2' panel being fitted to Aluminium T's. The burning question has been answered.

'ASBESTOLUX' IS . . .

- ★ Absolutely Fireproof.
- ★ Light and Strong.
- ★ Of high Thermal Insulation value.

Manufactured by

- ★ Easily nailed and sawn.
- ★ Proof against warping, twisting or waving.
- ★ Unaffected by rot and termite.
- ★ Unaffected by steam, water or temperature change.

THE CAPE ASBESTOS CO. LTD.

DEPT. A4

114-116 PARK STREET, LONDON, W.1. Telephone: GROsvenor 6022

STEELBRAC

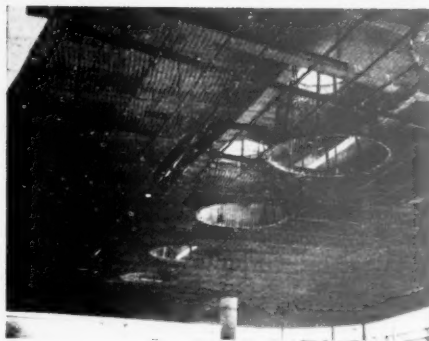
Framing & Metal Lathing

FOR SUSPENDED PLASTER CEILINGS

SAVES 50% STEEL

WITH OUR SYSTEM OF
CONSTRUCTION

THE MOST MODERN AND
EFFICIENT GROUNDS FOR
SUSPENDED PLASTER
CEILINGS



LOWER COST

WITHOUT SACRIFICE OF
RIGIDITY OR EFFICIENCY

Extensively used in SCHOOLS,
PUBLIC BUILDINGS, HOS-
PITALS ETC. THROUGHOUT
THE COUNTRY

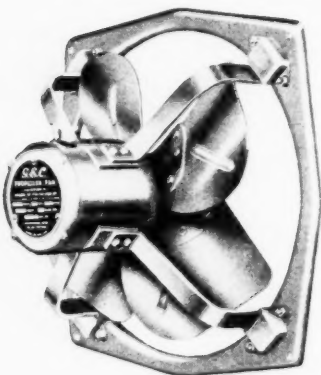
Suspended Steelbrac Framing and Metal Lathing fixed ready for plastering.

STEEL BRACKETING & LATHING LTD.

WILLOW LANE, MITCHAM, SURREY

Telephone:- MITcham 4072/3/4

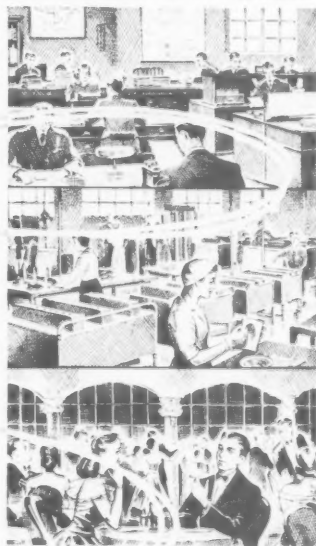
Fresh air minded



Fresh air, whether at work or play is invaluable to individual well-being and clear thinking. Unhappily, fresh air usually has to be induced by properly planned ventilation, for which many different and efficient G.E.C. fans have been designed.

This is a 12" propeller fan, very quiet in operation because the motor was designed specifically for use with fans and because a patented rubber suspension mounting is used.

This fan moves more air with less noise and less power consumption than fans with narrow or flat blades, air movement in this case being 1120 c.f.m. at 1350 r.p.m. Send for publication V968 for full details.



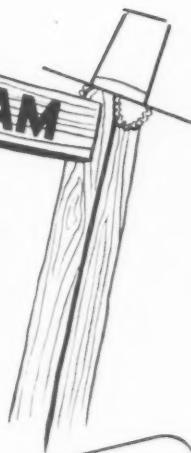
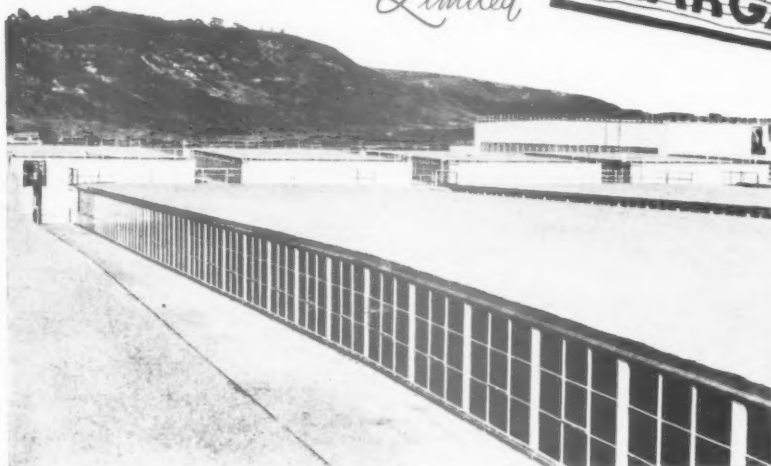
PROPELLER FANS *by* G.E.C.

THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON, W.C.2

THE STEEL COMPANY OF WALES

Limited

MARGAM



160,000 SQUARE FEET
OF $\frac{1}{4}$ INCH CAST GLASS
GLAZED WITH
SEALON
metal casement
PUTTY



Glazing Contractors
Bristow, Wadley & Co. Ltd.,
Swansea & Cardiff

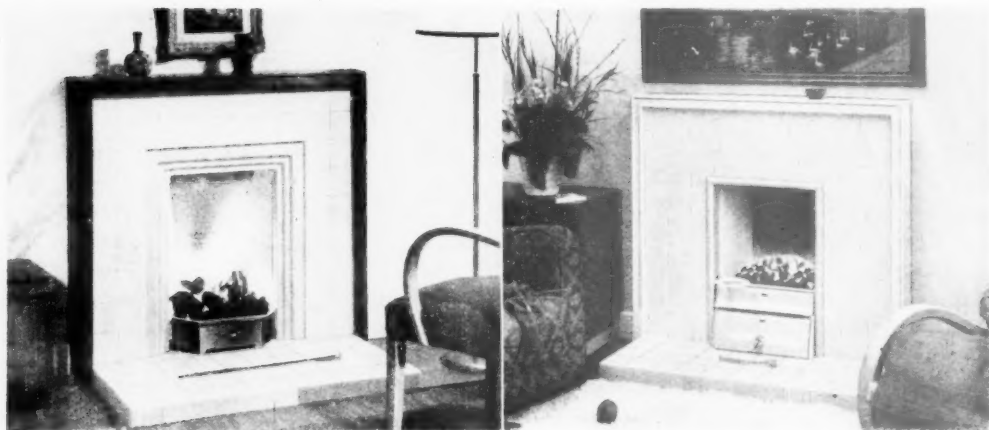
OBTAINABLE FROM ALL LEADING MERCHANTS.

SOUTHERN & MIDLAND AGENTS:—HARRISON CLARK LTD., LEIGH-ON-SEA, ESSEX.

MANUFACTURED BY THE LARGEST EXCLUSIVE MANUFACTURERS OF PUTTIES
AND SIMILAR COMPOSITIONS IN GT. BRITAIN.

SEALANCO (ST. HELENS) LTD., ST. HELENS. LANCS.





No. 3054 polished or painted wood mantel; tile surround and hearth. Shown with the Heaped Fire, but may be supplied with other fire parts.

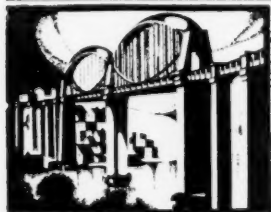
No. 3053 suite. The Chévin Boiler Flue Set shown above burns smokeless fuel (all night) and supplies domestic hot water.

TWO typical fireplaces in the Bratt Colbran tradition and eminently suitable for today's low price housing.

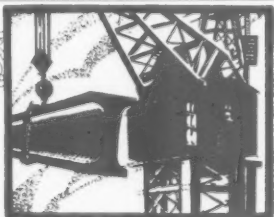
Bratt Colbran

See our permanent exhibit at the Building Centre,
Store Street, Tottenham Court Road, W.C.1.

BRATT COLBRAN LIMITED, 10 MORTIMER STREET, LONDON, W.1. Telephone: MUScum 9411



FOR USE ON IRON AND
STEEL WORK-WILL ARREST
AND PREVENT FORMATION
OF RUST-COVERS WELL
AND LASTS A LIFETIME



ANTI-RUGINE

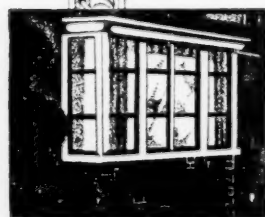
A METALLIC PAINT READY FOR USE

FURTHER PARTICULARS AND SAMPLES
ON APPLICATION TO THE SOLE MAKERS

Charles Turner

& SON LTD
165, HIGH HOLBORN,
LONDON, W.C.1

Telephone: TEMPLE BAR 7651





"ARMOURPLATE" Glass Doors NOW IN ABUNDANT SUPPLY NO WAITING LISTS



MEANS NEW 'OPEN DOOR' POLICY

I have recently visited several premises where the 'open door' policy has been adopted. In every case, the result has been a more attractive and more efficient display. The 'open door' policy is now being adopted by many business premises. It is a policy which allows the public to enter the premises at any time, without the need for a waiting list. This is a great advantage for both the customer and the business. The 'open door' policy is now being adopted by many business premises. It is a policy which allows the public to enter the premises at any time, without the need for a waiting list. This is a great advantage for both the customer and the business.

SUSAN

"ARMOURPLATE" Glass Doors are now available in quantities never before possible. This means that all business premises can extend the 'open door' invitation to passers-by and convert their entrance and interiors into one attractive and uninterrupted display.

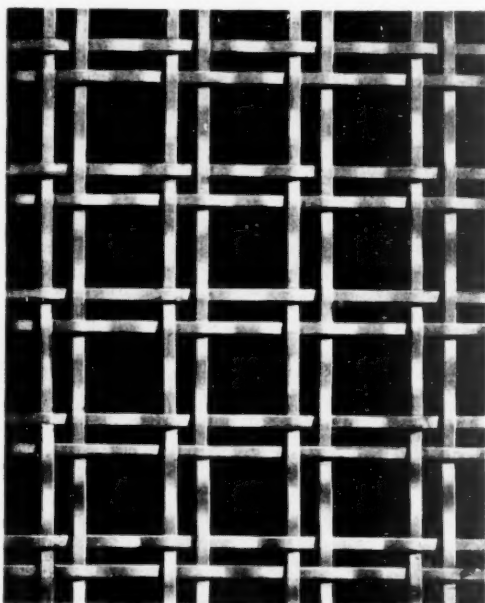


PILKINGTON BROTHERS LIMITED

Consult the Technical Sales and Service Department at St. Helens, Lanes., or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6.

Supplies are available through the usual trade channels

"ARMOURPLATE" is the registered trade mark of Pilkington Brothers Ltd.



HARCO RIBBON WIRE

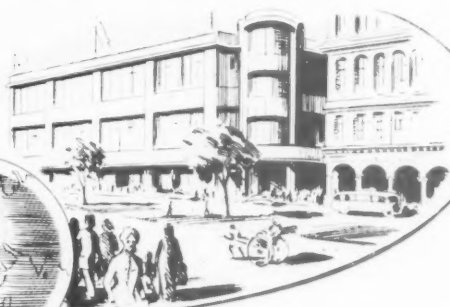
The artistic effect of Harco Ribbon Wire renders it particularly suitable for use where care of design and appointment are of major importance. Architects will appreciate that it not only screens the unsightly, but allows free circulation of air. The patterns in which Ribbon Wire can be woven, make it the perfect selection for Lift Shaft Enclosures, Ventilating Panels, Radiator Covers, Electric Heater Covers, etc. Illustration shows Pattern No. 1376 W. Other Patterns and full particulars in Catalogue A 744.

Harvey

G. A. Harvey & Co. (London) Ltd. Woolwich Road, London, S.E.7

ARBOLITE and ARBOMAST B-1

*Universally
approved for
all climates*



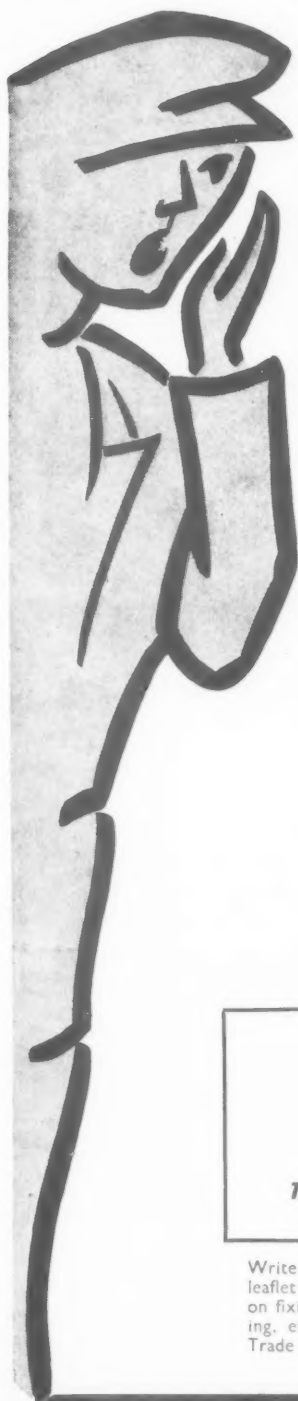
ARBOLITE METAL CASEMENT PUTTY is supplied in a "ready for use" consistency and consequently requires no pre-mixing on the site. It works easily, points neatly and remains exactly as finished without shrinking, cracking or wrinkling. Arbolite has excellent keying properties and ensures a tight, tough waterproof joint, adding considerably to the life of metal windows.

ARBOMAST B.1 BEDDING MASTIC withstands the most rigorous climatic conditions and eliminates all possibility of running, sagging and staining. Equally suitable for bedding frames into brick or wood surrounds, or for completely filling the interstices when composite units are coupled together with mullion and transom bars.

Full descriptive Literature On Request.

ADSHEAD RATCLIFFE & CO · LTD · BELPER · DERBY

PHONE
BELPER 351/2



BIG NEWS FOR ROOFERS!

**New flexible sheeting
rapidly replacing metal
at HALF THE COST**

Here is **NURALITE** (Regd. Trade Mark)—the new non-metallic flexible sheeting with which FLAT ROOFS, GUTTERING, RIDGING, FLASHING, etc., etc., can be completed at approximately half the present cost of sheet zinc.

NO LICENCES NEEDED—IMMEDIATE DELIVERY (and that means further savings!)

Note these points:—

PROVED DURABILITY—composed of Asbestos and Bitumen—materials of proved endurance • **PERMANENTLY WEATHER-PROOF** • **EASILY CUT** with Tinsmiths' shears • **RIGID WHEN COLD** but **MOULDABLE TO ANY SHAPE** after gentle warming with a blowlamp • **SHEETS CAN BE WELDED** giving a strong impermeable joint.

A few of the many saving uses:—

Flat or sloping Roofs and Roll Cap; Capping Pieces and Stop Ends; Saddle and Cover Pieces; Cover, Step and Counter Flashing; Dormer Cheeks, Soakers, Cill Pieces; Window Heads and Corners; Box and Valley Gutters, Parapet Wall Gutters; Drop and Stop Ends; Ridging, Hips and Intersection Caps, etc., etc.

NURALITE

(Regd. Trade Mark)

The up-to-date non-metallic sheeting with 100 saving uses!

Write today for illustrated leaflet giving full details on fixing, bending, welding, etc., to Sole Home Trade Distributors:—


NURALITE SALES LIMITED

WHITEHALL PLACE, GRAVESEND, KENT

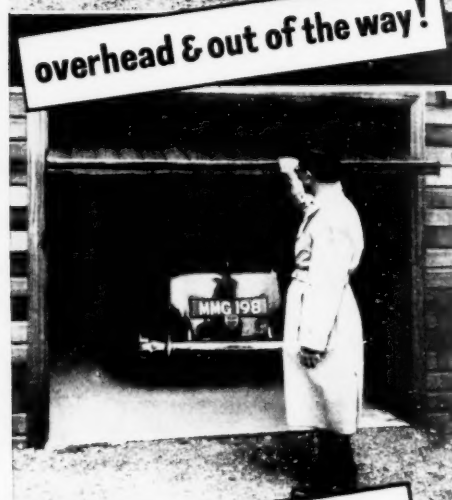
Telephone: Gravesend 4911 (6 lines)

Manufactured by Cellactite and British Uralite Ltd., Higham, Kent

Up she goes



overhead & out of the way!



- with the
ACROW
UP & OVER Garage Door Fitting

You can now buy this beautifully made mechanism which converts your old-fashioned garage door into the luxury "Up and Over" type at the amazingly low price of **£10 . 6 . 2.**

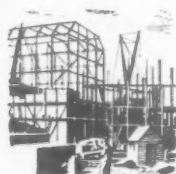
Send now for fully descriptive leaflet ABN DF

ACROW (ENGINEERS) LTD., SOUTH WHARF, PADDINGTON, LONDON, W.2
 Telephone: AMBASSADOR 3456 (20 lines)

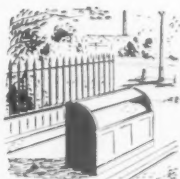
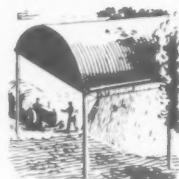


*For a job
like this*

*or a job
like that*



or one like this



or one like that



The ideal PAINT for metal

- ★ **Standard Black** For general metal preservation.
- ★ **Dipping Black** For dipping and spraying.
- ★ **Furnace Black** For heat resistance up to 450°F.
- ★ **Tank Black** For inside cold water storage tanks.
- ★ **Coloured** To suit any requirements.
- ★ **Aluminium** A brilliant aluminium — stands up to 500°F.

Solignum Ltd., 30 Norfolk St., London, W.C.2.

Downe Manor Primary School, Ealing, Middlesex
Architect: C. G. Stillman, F.R.I.B.A.,
County Architect, Middlesex County Council



*School Building
Programme = SBP*
*SBP + Good Roofing
+ skilled fixers
= Roofing by
RUBEROID*

The Specification of the Ruberoid System of Roofing for much of the School Building Programme testifies not only to the dependability of Ruberoid and its low cost per year of service but also to the speed with which the work can be executed.

There are suitable weatherproofing specifications to meet the requirements of all types of Industrial, Educational and Private buildings with flat, pitched or curved roofs.

Architects and Engineers are invited to write for the technical brochures which describe these specifications in detail.

THE RUBEROID COMPANY LIMITED, 93, COMMONWEALTH HOUSE, NEW OXFORD STREET, LONDON, W.C.1

Branches: Manchester, Newcastle-on-Tyne, Birmingham, Glasgow, Edinburgh, Aberdeen, Belfast



A typical 'Halcyon' installation

This SUGG Halcyon Assisted-convection gas-fired Space Heater is keeping several rooms warm. A gentle stream of warmed air is silently fanned through all open rooms, giving remarkably even background warmth from floor to ceiling. This new development in space heating is available for both flued and flueless operation, and besides being economical to install, is very efficient in its use of fuel.

A wide range of models is available for both Domestic and Industrial use, offering many advantages over other methods of space heating.

Ask for details and data sheets.

WM. SUGG & CO. LTD.
CHAPTER STREET,
WESTMINSTER, S.W. 1
Victoria 3211



NO CAUSE FOR ALARM—TO SPIDERS

The iridescent film of moisture that lies so gracefully—and so harmlessly—upon the spider's web will creep and rust and corrode the metal webs that are woven out of steel and iron. The spider can safely ignore moisture. You, however, must fight it with protective paint. The best paints you can specify for this purpose are based on Spelthorne Metallic Lead Pigment. This is a 99.5% finely divided metallic lead in carefully balanced media. It protects both by exclusion and inhibition—first by stopping moisture from attacking metal in the form of rust, second, by stopping rust-creep should any part of the metal protective coating become damaged.

Samples, prices and full details from—Witco Chemical Co. Ltd., Bush House, Aldwych, London, W.C. 2 and 30 Cross St., Manchester, 2, or from the makers—

SPELTHORNE METALS LTD.

35 BERKELEY SQUARE, LONDON W. 1

'CALLOW ROCK' Gas-burnt WHITE LIME

is a Non-hydraulic, Class A
Quicklime for Plastering
Finishing Coat, Coarse Stuff
and Building Mortar,
conforming to British Standard
Specification No. 890—1940

**The Callow Rock Lime
Company, Ltd.
Cheddar, Somerset**

For every lighting need there's a

"just right"

HARCOURT fitting



EDISWAN

HARCOURT

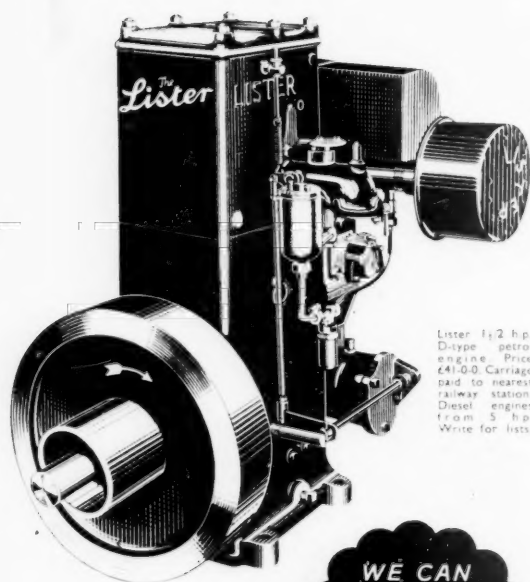
Industrial and Commercial Lighting Equipment

THE EDISON SWAN ELECTRIC CO. LTD., 155 CHARING CROSS ROAD, LONDON, W.C.2

Member of the A.E.I. Group of Companies

and Branches
LE147

CONFIDENCE



Lister 1 1/2 h.p.
D-type petrol
engine. Price
£41.0.0. Carriage
paid to nearest
railway station.
Diesel engines
from 5 h.p.
Write for lists.

**WE CAN
SUPPLY THIS
ENGINE FROM
STOCK**

**Specify Lister
the engines
that are built
to last . . .**

**That's why
people buy
them**



R. A. LISTER & COMPANY LIMITED

DURSLEY, GLOUCESTERSHIRE

Branches: STAMFORD, LONDON, GLASGOW, DUBLIN

Come Inside



The ease of operation of Bolton Gates means that heat losses, through failure to close, are greatly reduced.

Similarly Bolton Gates largely exclude dust and are proof against most vermin, and are fire resistant. Made in all sizes in steel or duralumin to accommodate every type of entrance, they form a handsome addition to any building as well as greatly contributing to the efficiency of the undertaking.



BOLTON

C-O-L-L-A-P-S-I-B-L-E GATES

Supplied for hand, power or invisible ray operation—full details will gladly be sent on request. Write for catalogue A.B.'52.

LONDON OFFICE: 248, PERTH ROAD, ILFORD, ESSEX

dm BG 78

BOLTON GATE COMPANY LIMITED, BOLTON, LANCs.,



Listen?

"it doesn't sound like a busy general office, does it? They've just put a special kind of panelling on the ceiling. The boss says my shorthand's improved, but it's really because I can now hear what he says . . ."

She's talking about Acousti-Celotex, the most widely used sound absorbing material in the world.

Nerve-wracking noise can be economically controlled by these scientifically designed fibre tiles, which are easy to instal and permanently effective. The warm white finish has an unusually attractive quality, but they can be painted time and time again without losing their efficiency.

Acousti-Celotex is a 'money saver'. By preventing noise-fatigue, it lowers absenteeism. Today it is an essential feature of modern business architecture.

ACOUSTI-CELOTEX

Banishes **NOISE - FATIGUE**

REGIONAL DISTRIBUTORS

*(Wales and all counties south of
Cheshire and Yorkshire)*

HORACE W. CULLUM & COMPANY LIMITED
FLOWER'S MEWS, LONDON, N.19.

(County of Yorkshire)

J. H. BEAN & COMPANY LIMITED
31/32 UPPER MILL HILL, LEEDS, 1.

*(Scotland and northern English
counties including Cheshire)*

WILLIAM BEARDMORE & COMPANY LIMITED
PARKHEAD STEEL WORKS, GLASGOW.

PRECISION ROOFING

WORKS PRODUCED SYSTEM OF
ROOF CONSTRUCTION



List of Education Authorities
who have used and specified
Precision Roof Grillage:

COUNTY COUNCILS

*Berkshire, Dorset, Durham, Flint-
shire, Glamorgan, Herefordshire, Kent,
Lancashire, Middlesex, Northumber-
land, Nottingham, Surrey, West
Riding, West Sussex, Wiltshire*

COUNTY & MUNICIPAL BOROUGHS

*Blackburn, Carlisle, Coventry,
Darlington, Eastbourne, Manchester,
Rochdale, York.*

WEST COUNTY SECONDARY SCHOOL,

SITTINGBOURNE, KENT

ARCHITECT S. H. Loweth, F.S.A.,
F.R.I.B.A., County
Architect, Springfield,
Maidstone, Kent

CONTRACTORS F. Parham Ltd., Eva
Road, Gillingham

ROOFING Roberts Adlard & Co.
Ltd., 23 Albion Place,
Maidstone, Kent

REDWELL LANE COUNTY SECONDARY SCHOOL, SOUTH SHIELDS

ARCHITECTS J. H. Morton & Son,
South Shields

CONTRACTORS Henderson Bros. (1936),
South Shields

ROOFING John E. Nelson & Son,
CONTRACTORS Sunderland

PRECISION GRILLAGE

In the form of steel grillage with every intersection
welded and gauged according to the size of the
covering to be used.

The slates or tiles can be quickly and accurately
secured, held by specially designed rustless steel
clips, by a minimum of skilled labour. Write for
further particulars.

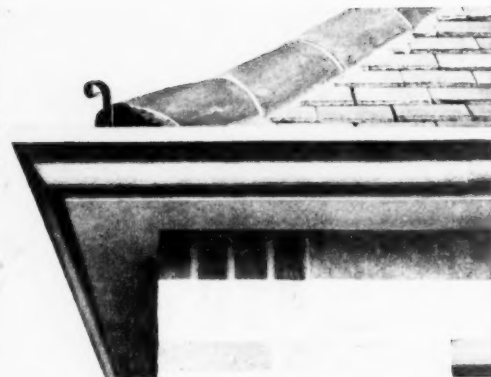


PRECISION ROOFS LIMITED TEMPLEBOROUGH SHEFFIELD

Phone: Rotherham 2231

In association with McCall & Co. (Sheffield) Ltd., Templeborough, Sheffield

London Office: 10 Grosvenor Gardens, S.W. 1



FINLOCK GUTTERS

Save £30

PER PAIR OF HOUSES

OMISSIONS

9yds. 1 1/2in. Brickwork	2 Outlets	80ft. of Soffit
160ft. of 2in. by 1in.	2 Offsets	Beam Filling
80ft. of Fascia	60ft. super of Roofing	4 Stopped Ends
80ft. of C.I. Gutter	80ft. of Tile Fillet	2 Lead Slates
	Painting Gutters—Fascia—Soffit	
	Reduction in Down Pipes and Drainage	

ADDITIONS

FINLOCK PRE-CAST EAVES COMPLETE WITH ALL FITTINGS FIXED IN ONE DAY

FINLOCK GUTTERS LTD.,
20, ST. JOHN'S RD., TUNBRIDGE WELLS, KENT

Telephone : Tunbridge Wells 20396 (3 Lines)

Works at
Harncliffe,
Cwmbran,
Leeds.

Devon,
Monmouthshire,
Yorkshire.

Musselburgh,
Southam,
Southborough.

Midlothian,
Warwickshire,
Kent.

Over 200 County, City and Local Authorities are now using Finlock Gutters for their 1952 Programmes for every conceivable type of building. Police Housing, Schools, Libraries, Municipal Housing. Acclaimed by Architects and the Trade as the finest advance in building construction. Our statements with regard to saving in cost are being confirmed every day by Quantity Surveyors. The actual amount varies and is dependent on the existing specification.

Finlock greatly improves the appearance of a building, and being of fine waterproof concrete reduces maintenance costs appreciably. Roof maintenance is greatly facilitated by the use of Finlock Gutters and painting is reduced to doors and windows.

Reg. No. 555248

Reg. No. B516.673

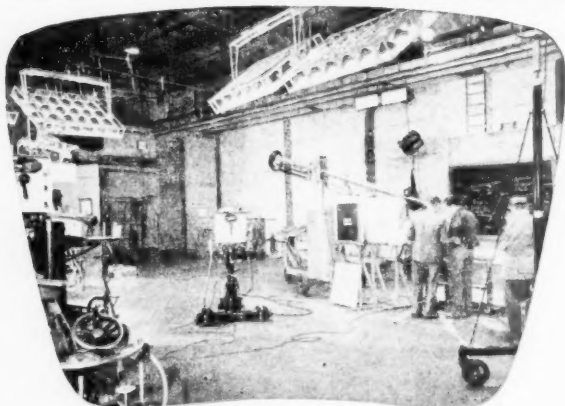
RED HEART & WHITE HEART SASH CORD

LOCKED-STITCH SOLID
BRAIDED COTTON

BRITISH MADE FROM THE WORLD'S BEST COTTON—LASTS A LIFETIME

Send for sample and particulars

G. E. MEWIS, LTD., Midland Ropery, BIRMINGHAM 3.



J & B Mineral Wool Acoustic paneling installed at Lime Grove Television Studios. (Photo by kind permission of B.B.C.)

J&B

MINERAL WOOL

THE PERFECT INSULANT. Fireproof, Mouldproof and Anti-Vermin. Non-Corrosive. Water-Repellent, not given to settlement—J & B keeps its great insulating powers permanently

Consult our Advisory Service, Dept. S.I. without obligation

JONES & BROADBENT LIMITED

Thermal and Acoustic Insulation Specialists

PERREN STREET, LONDON, N.W.5. Telephone : GULliver 2120, 5548 9 and at REDCAR, MANCHESTER, BRISTOL and BURTON-ON-TRENT

O.K for SOUND

A.I FOR COMFORT

ACOUSTIC APPLICATION

The Acoustic problems of sound recording and television studios have been solved by the highly versatile and efficient J & B Acoustic Panels illustrated in the photograph of Lime Grove television studios.

J & B Insulation consists of Mineral Wool, the finest barrier against unwanted noise. This remarkable product, with its flexibility and fireproof properties, is completely safe for operatives to handle.

THERMAL APPLICATION

J & B Mineral Wool has an equally fine reputation as the most effective and economic Thermal Insulant used in the Building Trade and in industry.

ECONOMY

Great economy in fuel consumption in cinema heating plant can be effected by insulation of boilers, piping and storage tanks, etc. Further, a steady all-year-round temperature can be assured by insulation of auditoria roofs with further substantial saving in fuel costs. Up to 80% fuel economy can be obtained.

Builders of Cinemas should specify J & B Mineral Wool Insulation. Managements of existing Cinemas are recommended to consult our Advisory Bureau to assist them in tackling their fuel economy problems by adequate insulation to ensure A.I comfort for their patrons.

Vol. 201 No. 4353

THE
ARCHITECT
& BUILDING NEWS

May 22, 1952

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid; U.S.A. and Canada \$9.00.

Published by ILIFFE & SONS LTD, DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1
Telephone: WATERLOO 3333 (50 lines). Telegrams: "ARCHITONIA, SEDIST, LONDON."

Branch Offices: Coventry: 8-10 Corporation Street; Birmingham: King Edward House, New Street;
Manchester: 260 Deansgate, Tel. Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); Glasgow: 26B Renfield Street.

PLANNING AND RESEARCH

AT the annual country meeting of the Town Planning Institute last week a paper was read on a relationship of theory and practice in town planning. The actual study presented was concerned with population movement from that crowded result of the unplanned past, South Lancashire. Mr. Sutton Brown, County Planning Officer of the Lancashire County Council, presented the paper, and his critical analysis of planning in action was an outstanding exposition of what should always be the real guiding spirit of physical planning: knowledge and scientific application, tolerance and understanding. For it is people and lives that are being examined and assisted and not just the material elements of mineral and agricultural wealth or the related but soulless formulae of economics and politics.

At the same time it was recognized how difficult planning can be, how different it can be from mere paper calculations and how it must be visualized, at one and the same time, as both immediate and long-term. Planning is a long history of development from the first Act of 1909 to what Mr. Sutton Brown described as "the legal powers available for influencing the planned redistribution of population . . . scattered through several Acts of Parliament and . . . administered by more than one Department of State.

Nevertheless," he added, "it is possible for a planning authority (in collaboration with Local Authorities) to collect these powers together and to weld them into an efficient instrument of policy." He ended his paper with a tribute: "The whole conception (of present work under the 1947 Act) was born in the plans of our former Regional and Advisory schemes, and to them must go the major credit"; now and forthwith it is the duty of planning authorities to proceed to practice and administration unhindered by partisanship or sectarian intolerance.

That the latter exists and is vehemently active was shown also last week, not a hundred miles from the Town Planning Institute's Southport meeting. Another conference listened to and applauded those who regard the Town and Country Planning Act "as the most pernicious Act ever placed on the Statute Book," and who called for its complete repeal or drastic amendment. We do not wish to add publicity to either the occasion or the particular exponents of this view, but that it should be expressed (and reported in the daily Press) by a responsible body of people who presumably practise planning in their own trades and vocations for some reason or another (if only their own), is an indication that tolerant collaboration is not so universal as it should be if useful planning is to progress for the benefit of

the whole and not sections of the community.

This is not to say, of course, that it is not possible to revise any Act, including the Town and Country Planning Act, in the light of extended experience. When a process of thought has been developed by many minds, and several different types of Government, and is supported by a number of Acts designed to stop widely different abuses, over a period of nearly fifty years (even ignoring the early history of the subject) and it is found that opposition to the whole subject breaks out periodically in almost fanatical statements and campaigns, it can only be concluded that such arise from ignorance, incapacity or the existence of economical or political axes to grind. This is not the way of progress, with its call for tolerance and understanding and the ever-adjusting compromise of statecraft.

* * *

We would turn from the uneasy contemplation of these latter inconsequentialities of the present day to something which was discussed at the London County Council meeting last week. The Council noted that the staffs at technical colleges are not usually numerous enough to permit time to conduct or to supervise research. Such activities are, we

believe, fundamental to both general progress and to enlightened graduate teaching.

The Council are to make an experiment and this year appoint twenty research assistants, with special remuneration, to be registered as full-time students of London University, with obligations to undertake six hours' routine teaching or laboratory supervision each week. The scheme emanated from the Regional Advisory Council, and would enable permanent staffs of colleges to devote time thus gained to carrying out projects of research or to direct the research of others. The scheme starts in September next and judging by the figures given the cost is very small considering the potentialities. If the latter are proved after the test period then the scheme is certainly worthy of the attention of other County Authorities.

Nothing breaks down ignorance or prejudice so thoroughly as the impact of unbiased research. True scientific examination, whether of people or things, must be free of the narrowing influences of politics and must use imaginatively the acquired facts of economics and statistics and not be ruled by them. We make no apology, therefore, for the several parts of this heterogeneous leader.



Lambeth Mission, Lambeth Road, as it will be when completed. An article on the first stage appears on pages 595-597.

EVENTS AND COMMENTS

B.I.F. LONDON

It was odd how this year everyone one met during the B.I.F. said with obvious enjoyment that the whole thing was being the most enormous flop. The figures just published do in fact show that the number of visitors was considerably less than last year but, at the same time, there were more American buyers than ever before. The official figures do not, of course, give particulars of the business done. Judging from exhibitors to whom I have spoken business was bad. I visited Earls Court and Olympia on one of the final days and, expecting to find them both empty, was surprised at the crowds and also by the number of foreign languages being spoken. The oddest thing I saw was a party of sikhs placing an order at the Pakistan stand. At Earls Court I thought that the standard of display was generally better than ever before although the setting was this year devoid of special features provided by the Fair itself. At Olympia, too, the standard was generally high within the design vocabulary which I noticed at Castle Bromwich last week. There were, however, one or two exceptions. For example, Basil Spence's stand for I.C.I. which had gone right away from egg crates and space frames and was a mass of sloping skylines and non-rectangular planning. One or two others had gone the same way but not so successfully. The B.O.A.C.-B.E.A. stand was better than any they have produced for some time. As at Earls Court, nothing was this year provided as a central feature and the exhibition lost something by it, although it was probably a sensible economy. The only shows with crowds round them were the model trains in the toy department and a stand where hideous objects were being cast in flexible plastic moulds.

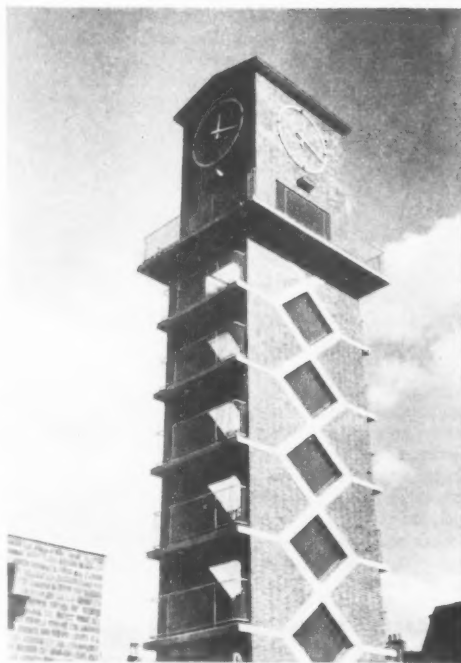
NEW A.A. PRESIDENT

Mr. A. R. F. Anderson, next year's A.A. president, is one of those architects who normally seem to keep out of the limelight and to get on with building things in considerable quantity and variety. He is essentially a practical man and simplicity and honesty are among his outstanding qualities. He has already shown himself to be a good administrator during his term of office as Honorary Treasurer at the A.A. and I feel sure that he will make a notable and cheerful president.

THE FLOODLIGHTING OF BUILDINGS

While I welcome the decision to floodlight London buildings during the summer months I notice with some disappointment that the list is the same as usual. Certain of them (for example, St. Paul's and Somerset House, are the outstanding ones) are automatic choices. The claims of some of the others are not so obvious. I think it would be a good idea to vary the mix occasionally. Why not floodlight buildings which have in past years received the London Architecture Bronze Medal, or why not light up the works of the current gold medallist?

Attention was drawn last week to the large number of architectural centenaries being celebrated this year. Per-



The Clock Tower in Lansbury Market Square was opened last Friday by the Rt. Hon. Charles Key, M.P. for Poplar. The architect for the clock tower was Frederick Gibberd, F.R.I.B.A., M.T.P.I., assistant architect, J. B. Forrest, A.R.I.B.A. The photograph shows two r.c. interlocking staircases, the pattern of which is expressed externally, leading to a viewing platform 55 feet above the ground.

haps some of the buildings involved could be included in the floodlighting list.

NEWS FROM SWEDEN

Mr. Tage Tagtström, consulting engineer to the great Stockholm Building Association H.S.B. was here on a visit last week looking for new building ideas. He told me that he had found quite a number which interested him. Among new ideas from Sweden were centralized refrigeration systems for flats, where the cooling water from the plant is used in the domestic hot water system thereby saving a certain amount of fuel. It is now possible to extrude hardwood tubes up to any length, and by using some form of bituminous covering they can be used for rainwater pipes. Suitable joints and bends have already been designed. H.S.B. is not just a building association for it makes and markets much of its own equipment. The fact that it has its own sets of standards differing from the normal Swedish standards makes the organization somewhat unpopular with the Swedish architects I know.

DEMOLITION AT THE SOUTH BANK

The amount of publicity given to the destruction of the South Bank exhibition is almost indecent. It may have something to do with the childish delight of breaking

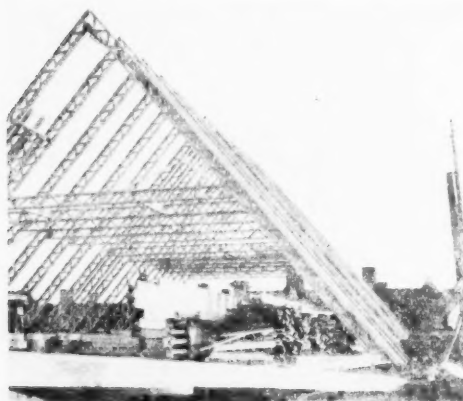
things, but it does seem odd that a Minister of the Crown should consider it worth while to be present at a formal demolition party. Mind you, I like Mr. Eccles, for among other things has he not on at least one occasion been mistaken for me? Pulling things down is George Cohen Sons and Company's business and judging by what we saw last week they are very efficient at it. In a booklet of facts about the work they are doing they give figures of the amount of scrap being salvaged from the Skylon and Dome. The intention being, it would appear, to astound us with the largeness of the quantities. To me 23 tons of steel and five of aluminium seems to be a poor exchange for the Skylon.

THE NATIONAL PITCHED ROOFING COUNCIL

To encourage the use of pitched roof coverings, and in particular of tiles and slates, the National Pitched Roofing Council has, since 1945, held annual competitions in a number of Schools of Architecture. In the current trend of architectural fashion such encouragement seems hardly necessary. The method of holding the competitions is interesting because it is designed to interfere as little as possible with the work of the schools involved. The competition is confined to one year, preferably the third or fourth and no special subject is set. The drawings must, however, include sufficient information to enable the assessors to assess the student's knowledge of pitched roofing. Alternatively the school may arrange for students to submit a thesis on a subject related to pitched roofing. Prizes, not exceeding 15 guineas in value, are awarded for each competition. The judging is done by a jury consisting of the Head of the School, a representative of the Council and an architect practising in the locality.

The report on past competitions has just been published and shows that whereas the standard of knowledge of roof construction was very high the knowledge of pitched roofing coverings was not so good. This is attributed to the average student's lack of opportunity to see work in progress and to see and handle the materials. The various finer points of tiling and slating are dealt with in detail in the report which in conclusion draws attention to the appropriate Code of Practice.

These competitions seem to me to be a very good idea



German timber roof constructed with triangulated beams.



Two views of the exhibition at the Building Centre of work by the students at the Hammersmith School of Building & Arts and Crafts.

and I am surprised that only 24 schools of architecture and building enter for them.

GERMAN TIMBER CONSTRUCTION

My picture shows an interesting German method of using timber scientifically. The roof is constructed with D.S.B. triangulated beams. These beams are glued together with a phenolic resin adhesive. Spans of over 150 feet can be constructed without difficulty. Sound pine or fir with a moisture content of not more than 20 per cent is used and this is claimed to do away with warping. Savings of up to 50 per cent over square timber construction can be made.

ROYAL FINE ART COMMISSION NEW MEMBER

I am very pleased to hear that Mr. John Betjeman, my favourite living poet, has been appointed a member of the Royal Fine Art Commission. I suppose his appointment will surely improve the prospects of Gothic Revival architects.

ABNER



Two new buildings in Moscow nearing completion. That on the right is the Ministry of Railways

NEWS OF THE WEEK

Notes from the Minutes of the R.I.B.A. Council Meeting held on May 6

Ministry of Housing and Local Government Circular No. 28/52

On the recommendation of the Town and Country Planning and Housing Committee, it was agreed to ask the Minister of Housing and Local Government to receive representatives of the Institute to discuss aspects of the Ministry's Circular No. 28/52.

Report of the Gardiner Committee

On the recommendation of the Salaries and Official Architects' Committee, it was agreed to express to the Treasury the Institute's disappointment that the recommendations originally put forward by the Institute in regard to the salaries of chief architects in Central Government service had not been endorsed by the Gardiner Committee, and to ask that the Treasury would again consider these recommendations.

Gift from Mrs. Margaret Chadwell, U.S.A.

The Council received with appreciation a gift of 100 dollars from Mrs. Margaret Chadwell, to be presented to an architectural student considered to be of outstanding talent, and it was agreed to convey the thanks of the Council to the donor.

At a meeting of the Derbyshire Education Committee on May 7, the Planning Committee reported that it had considered an offer by the Derbyshire Committee of the Nottingham, Derby and Lincoln Architectural Society to provide the services of a panel of architects to be available for consultation on building proposals of major architectural significance. The

services of the panel would be provided on a purely voluntary basis subject to reimbursement of out-of-pocket expenses incurred in advising on any matter involving a journey beyond a radius of 10 miles from Derby.

The Committee considered that professional advice of this kind would be useful in certain instances and, subject to review after a period of twelve months, had decided to accept the offer. The Committee's action was approved.

Mr. J. M. Richards will talk about Dublin's buildings, on Wednesday, May 28, from 8.55 to 9.15 p.m., in "Prospect," the Third Programme's monthly review of current questions in architecture and town planning.

Mr. Noel Pyman, F.R.I.B.A., has been elected President of the West Yorkshire Society of Architects. Mr. Pyman was the Architect for Leeds Dental School, and Leeds University Sports Pavilion. The Society has invited The Earl of Harewood to accept honorary membership.

Mr. S. Jarvie, D.Sc.(London), has been appointed Deputy Director of The Building Centre (Scotland), Ltd., Sauchiehall Street, Glasgow, and has taken up his duties. He succeeds Mr. A. Campbell, who has now gone into private practice.

CORRECTION

The County Architect, Shire Hall, Bedford (not Bradford as was printed in *A. & B.N.*, May 8) would appreciate information on contemporary materials and products in connection with a large building project now in the planning stage.

Interviews can be arranged after details and literature have been submitted.

Warnett Kennedy and Associates, Architects and Design Consultants, have removed their offices to 8, New Square, Lincoln's Inn, London, W.C.2, and will be pleased to receive trade catalogues, etc.

OBITUARY

The death is announced, on May 10, of Mr. John James Joass, F.R.I.B.A., of 40, St. James's Place, London, S.W.1.

COMING EVENTS

Georgian Group

May 24 at 10.30-noon. Visit to Saxham Hall, Bury St. Edmunds, Suffolk.

May 24 at 3.0-5.30. Visit to Heveningham Hall, Halesworth, Suffolk.

Students' Planning Group

May 24 at 9.40 a.m. Visit to Ministry of Housing and Local Government. Talk by L. P. Ellicot, Chief Planning Officer.

The Royal Institution of Chartered Surveyors

May 26 at 5 p.m. Annual General Meeting, at the Institution, 12, Great George St., S.W.1.

Housing Centre

May 26, 27 and 28. Housing Centre Conference on "Housing at the Right Rents," at County Hall, S.E.1.

Architectural Association

May 28 at 8 p.m. Ordinary General Meeting. Talk on "Indoor Gardening," by Peter Shephard, at 36, Bedford Square, W.C.1.

Building Centre

May 30 at 2.30 p.m. Lecture on "Surface Treatments," by J. G. Wilson, A.R.I.B.A., at Store Street, Tottenham Court Road, W.C.1.



General view of the model showing the gardens and St. Matthew's Close from the North-West.



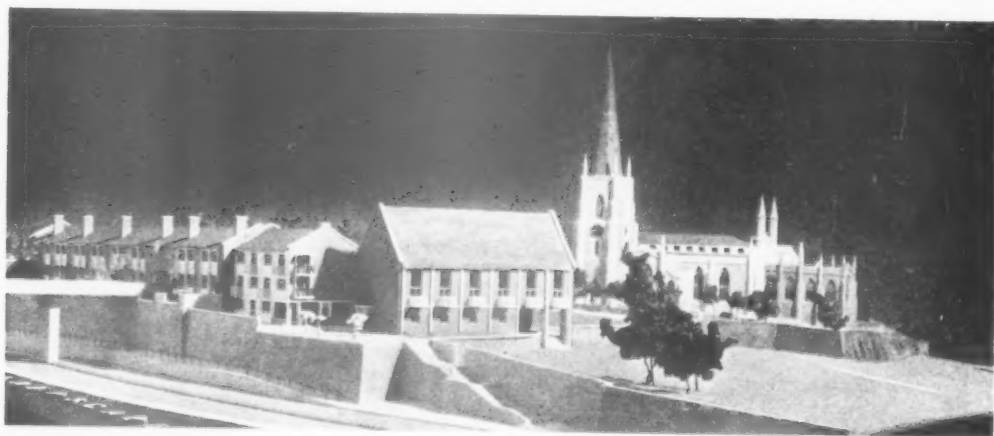
The foundation stone laid by Princess Margaret on May 1, 1951



The South side showing the block of flats

CHURCH HILL MEMORIAL GARDEN
for the County Borough of Walsall

designed by G. A. JELlicoe, F.R.I.B.A., P.P.I.L.A. in
Collaboration with M. E. HABERShon, O.B.E., Borough Surveyor and
E. J. WINTON, F.I.L.A., Parks Superintendent, Walsall



View of model showing the Brotherhood

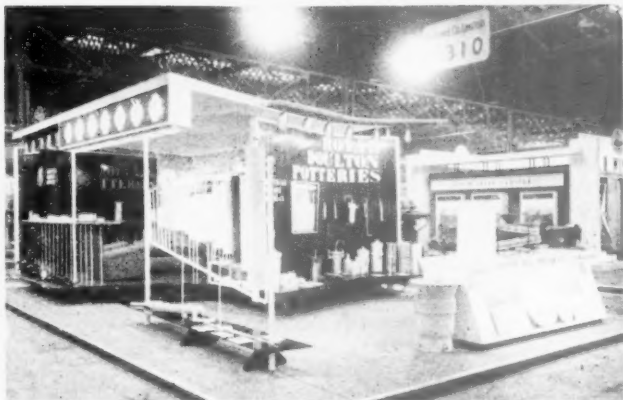
On May 1 the Mayor of Walsall opened Church Hill Memorial Garden one year after the laying of the foundation stone by Princess Margaret. The Garden commemorates the Dead of the Two World Wars. The part now open comprises part of the Walled Garden and View Terrace. The second part, which is to be started this year, consists of St. Matthew's Close on the south side of which is to be a block of flats. Later on, the Brotherhood will occupy the South-East Corner, and ultimately the scheme will be completed by the clearance of the slopes of the hill to the main Walsall-Birmingham Road and the making of an approach from this road to the Church, close by a landscape stairway. The model of the whole scheme shown here was completed this year.

SOME STANDS
AT THE
B.I.F.

Stand for Doulton & Co., Ltd., designed
by S. P. Jordan, A.R.I.B.A.

Below :
Stand for the United Steel Companies,
Ltd., designed by Robert Gutmann,
F.S.I.A. & G. Hoffstead, M.S.I.A. Con-
sultant, Misha Black, O.B.E., F.S.I.A.,
all of Design Research Unit.

The stand was on an island site and
consisted of a raised lounge and bar.

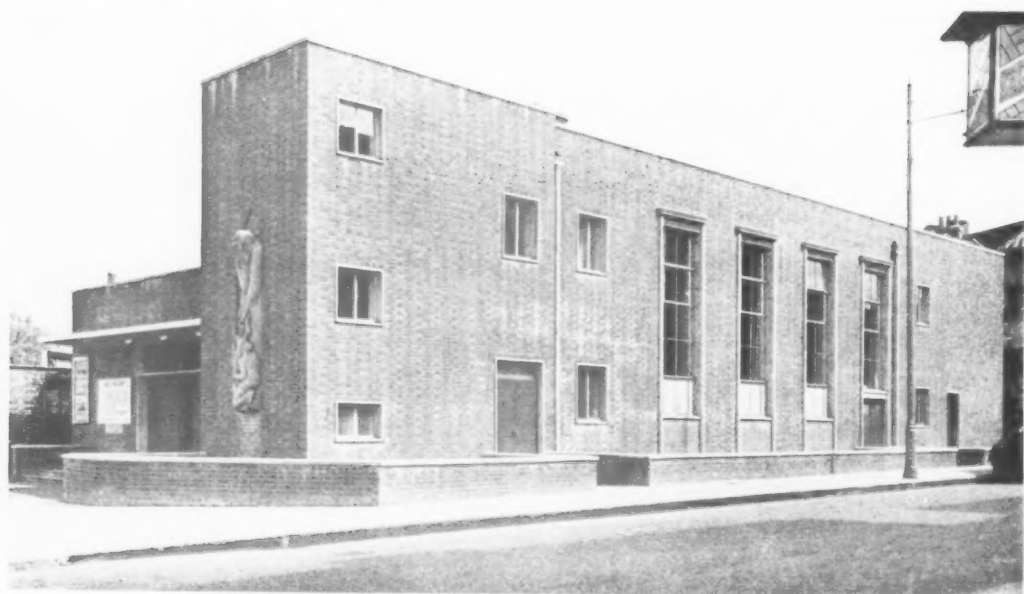


over a garden of exotic plants. The
"floating" effect was achieved by clad-
ding the recessed base with mirror.
The red ceiling was held up by thin
stainless steel tubes.

This photo shows a side view of the
Stand with the wall containing colour
transparencies and in the foreground a
sculpture by "Studio 2" carried out
in stainless steel and animated from
below by coloured lighting.

The General Contractors were Harris
& Sheldon Ltd.

The Shell stand at the Olympia section
which displayed the aspect of the
Group's activities, the manufacture of
chemicals from petroleum. Designer :
Ronald Dickens, M.B.E., F.S.I.A. Con-
tractors : G. & W. Waller, Ltd.



LAMBETH METHODIST MISSION

ARCHITECT: A. G. GAVIN, A.R.I.B.A. (Paul Manger & Partners)

Accommodation

Hall to seat 340 (including gallery)
Entrance Foyer, lavatories, small
kitchen, Gallery, Projection room

(2 film projectors, 1 slide projector)
2 Club Rooms (or dressing rooms)
at rear of stage, 2 lavs.

2 Club Rooms at rear of stage on
1st floor over.

Construction

13½ in. brick external walls faced
buff Uxbridge Flint and silver
grey; Artificial Stone dressings.
Foundations had to be taken down
to 8ft. as ground was made up
(basements of houses previously
demolished).

Roof—reinforced concrete covered
Briggs 3-ply bituminous felt
finished granite chippings.

Heating

Hot-water radiators supplied from
new gas-fired boiler in existing
boiler house in adjoining Institute.

Finishes

Foyer—Accotile (grey, dark blue
border).

Hall—Beech blocks.

Club Rooms—Beech Blocks.

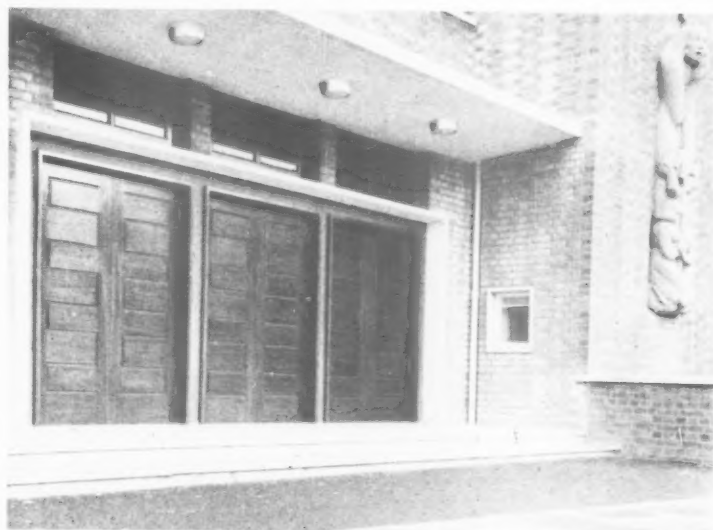
Stage—boarded.

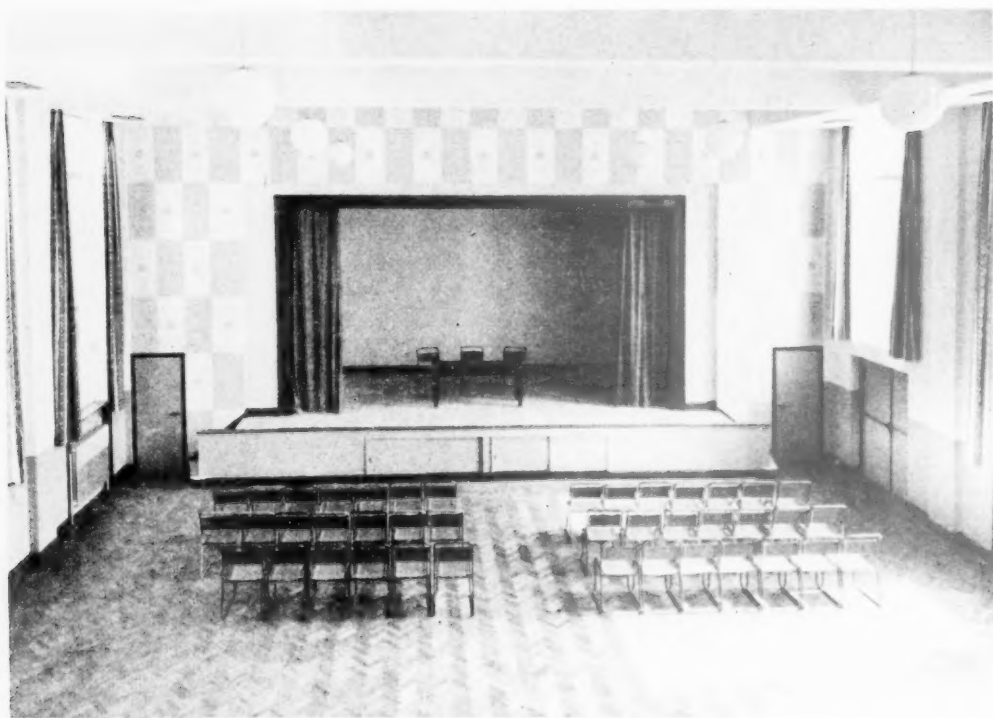
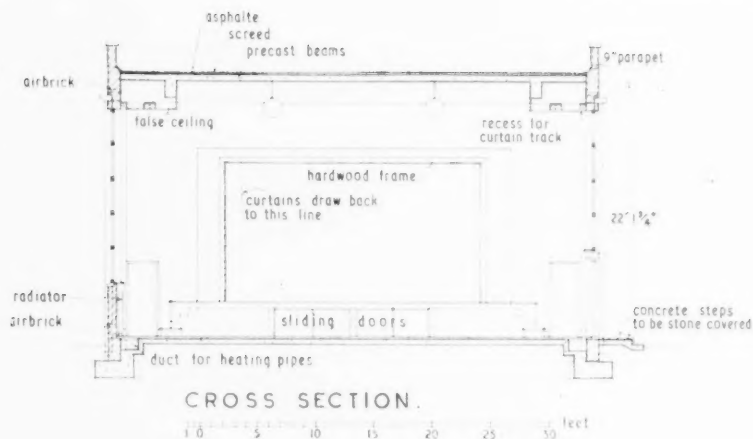
Walls and ceilings—plastered (lime
plaster in Hall above dado).

Front of gallery—acoustic tiles.

Cills—slate.

Main entrance doors and fanlights
over—mahogany. Slate surround
and threshold, rendered concrete
frame.





Colour Scheme

Hall—Ivory walls and ceiling, powder blue dado and stage front, architraves, skirtings etc., dark blue. Proscenium wall—chequer-board Heron grey and white. Recess around proscenium—pale lemon yellow. Proscenium surround—mahogany.

Curtains—stage—old rose windows, patterned beige, natural and pink.

Foyer—Walls—ivory, except seat recess which is pale pink.

Seat upholstery in dark blue moquette with white piping.

Doors and dado—pale blue.

Frames, architraves etc.—dark blue.

Notes on Planning

This building forms first stage of scheme to include Chapel, gymnasium, Sunday School Classrooms, canteen and hostel for men and women students over



LAMBETH METHODIST MISSION

Architect

A. G. GAVIN, A.R.I.B.A.

Continued from p. 596

whole of second floor. For time, being will serve as Church—one classroom at rear of stage to be used as vestry.

Sculpture

10ft. 6in. high—Bramley Fall Stone from bombed city building. Sculptor—Bainbridge Copnall. Represents "THE WORD"—Preacher with family below.

Cost

£17,000.





NEW BUILDING IN NEW YORK FOR LEVER BROTHERS COMPANY

The new headquarters of Messrs. Lever Brothers in New York was opened on April 29. An arcade, open to the street on three sides, occupies three-quarters of the site at ground level. On the other quarter, supported on steel columns, stands a 24-storey steel-framed skyscraper. The panels between the windows are of wired blue glass instead of more conventional materials. The top illustration on the page opposite shows a gondola suspended from davits fixed to a heavy carriage which runs on rails round the perimeter of the building. Using this device two men can clean the whole exterior in six days. The building accommodates 1,200 employees, is 306ft 6in high, cost 6m dollars. The architects were Messrs. Skidmore, Owings & Merrill.



"Modern Building Plant" Exhibition at Preston, Lancs

A "Modern Building Plant" Exhibition, which will bring together on one site the latest machinery and equipment for builders, from the small operator to the large contractor, is to be held in Preston, June 12-18. It is being organized by the Ministry of Works in association with manufacturers of building plant and equipment.

The Exhibition, covering an area of 100,000 square feet in the car park of Preston North End football ground, Deepdale Road, is to be opened by Mr. Hugh Molson, M.P., Parliamentary Secretary to the Ministry of Works, at 3 p.m. on Thursday, June 12. Mr. J. J. Ward, J.P., Guild Mayor of Preston, will take the Chair at the opening ceremony.

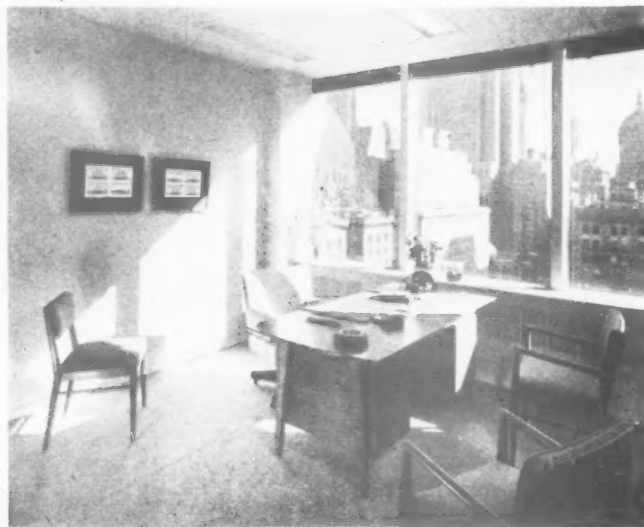
Ways of speeding housebuilding and reducing costs by increased mechanization will be an important feature. Equipment to be demonstrated on the site will range from a tower crane capable of lifting material up to 138 feet, to a nail gun which fires nails or studs into brick, steel or concrete.

Other exhibits will include earth augers, concrete mixers, scrapers, scaffolding, and a wide range of tractors, bulldozers, powered barrows and mobile hoists. There will also be demonstrations of powered hand tools, many of them of interest to the ordinary householder, which visitors will have an opportunity of trying for themselves. Fifty manufacturers from all parts of Britain will be exhibiting.

Craft demonstrations are being arranged in co-operation with technical education authorities in the area. Apprentices and building students will be seen at bricklaying, masonry, plastering and plumbing.

The public will be admitted to the Exhibition daily from 9 a.m. to 6 p.m. (8 p.m. on June 12 and 16), except Sunday. Price of admission is 1s.

The Ministry of Works has made arrangements to hold a "Modern Building Plant" Exhibition in Wales, next September. It will be at Sophia Gardens Field, Cardiff, on September 18-24 inclusive.



City and Guilds' Consultative Committee

Discussions have recently been taking place between the Education and Training Committee of the National Federation of Building Trades Employers and the City and Guilds of London Institute with regard to the setting up by the Institute of a consultative committee for the building industry.

The Executive Committee of the N.F.B.T.E. has now approved the appointment of Messrs. Harvey G. Frost (Bury St. Edmunds), and D. E. Woodbine Parish (London), as the Federation's first representatives on the consultative committee.

The committee will have no responsibility in regard to the conduct of examinations, each of which or each group of which already has its own advisory committee, but will be available for consultation by the Institute when questions arise regarding the adequacy of existing examinations and the need for alterations and extensions.

SOUTH BANK FOOTBRIDGE TEST

The prestressed concrete footbridge on the South Bank Exhibition, planned by Maxwell Fry, Jane Drew and Partners as part of the Waterloo Bridge Entrance, was tested to destruction on May 1, when the end span adjacent to Waterloo Bridge was loaded with kentledge and col-

lapsed after a weight of 85 tons had been applied to the deck. The bridge, which was designed by Ove Arup and Partners and built by Kirk and Kirk Ltd., had a design load of 35 tons. The total length of the bridge was 284 feet. It had three straight spans of 76ft, 59ft and 76ft respect-

ively and a dog-leg at the Festival Hall end with a 54ft span and a final 19ft cantilever.

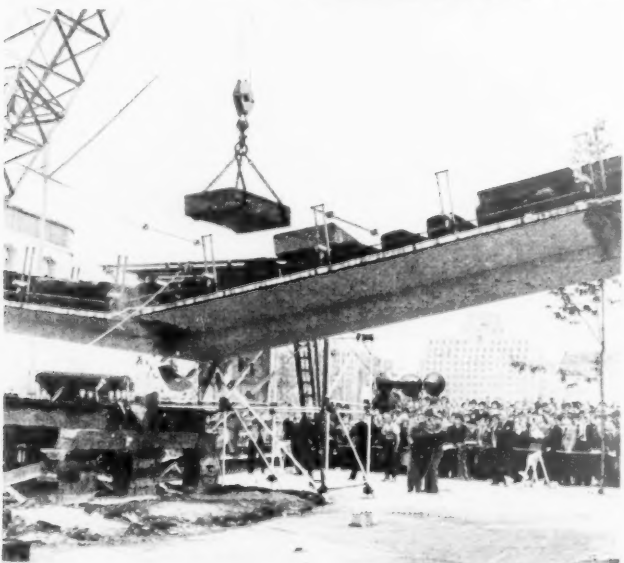
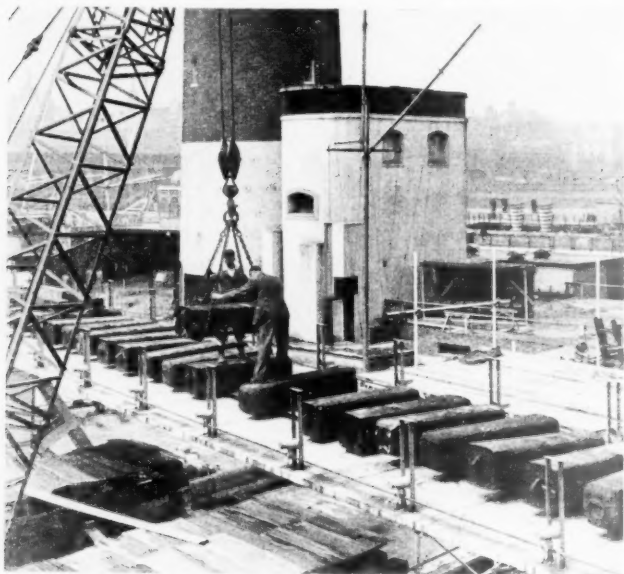
The bridge beam and deck were combined to form a T-beam with a wide shallow rib. The deck was 11ft 10½in wide (effective width 10ft 4½in) 9½in thick at the rib face and 3in thick at the edge, and was cantilevered from a rib 4ft wide and 1ft 10in deep.

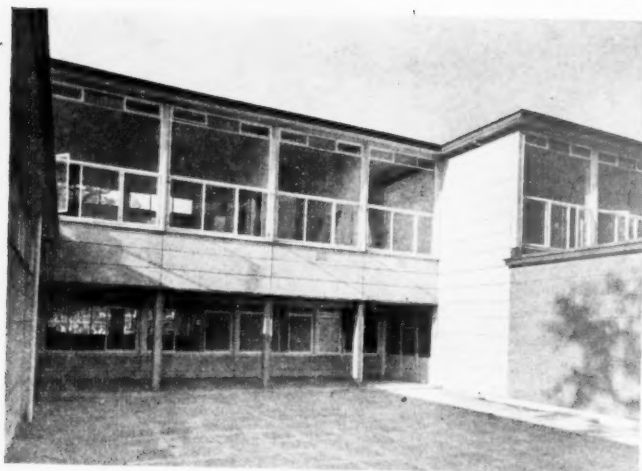
Columns were tapered from a section of 3ft 9in by 2ft 3in at the top to 1ft 9in by 1ft 6in at the base; the column at the angle was slightly thicker.

The Freyssinet system of prestressing was used, the long, three-span, section of the bridge being prestressed with twenty-four 12-wire cables, and the end span and cantilever with fourteen similar cables.

Failure appeared to occur almost simultaneously over the second support and near the middle of the loaded span by compression in the concrete. The end column remained vertical until pulled over by the collapsing span. There does not appear to have been any general failure of the steel cables, but a very noticeable feature after collapse was the absence of bond between steel and concrete due to the failure of the grout to penetrate through from the ends.

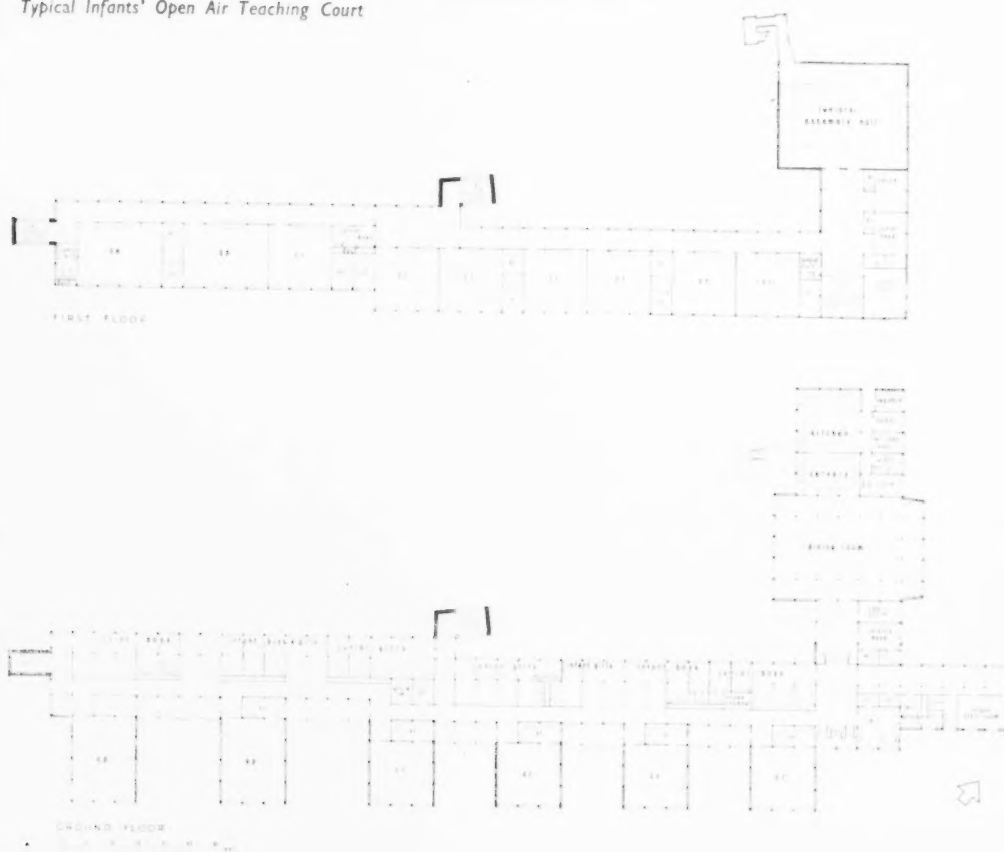
The photographs show: Top left, the bridge being loaded. Below, the bridge collapsing. Mr. Ove Arup (with cigar) looks on.





BESSEMER GRANGE
L.C.C. PRIMARY SCHOOL

Typical Infants' Open Air Teaching Court



Continued from page 601

(West Bromwich) Ltd. This system allowed all the advantages of pre-fabrication together with flexibility in design, necessary for such a large programme of schools.

This form of construction had so far been used only for single storey schools and as the Council's site conditions also necessitated the construction of two-storey schools, further developments were carried out with this firm and a two-storey construction devised with the maximum use of standard components. At the same time economy in heights and the principles laid down in the London Building Act in regard to structural stability and fire risk precautions had to be borne in mind.

Seventeen primary schools were included in the programme, and for contractual purposes were divided into groups of two, three or four schools in geographical areas. A shortened contractual procedure was adopted and tenders for each group were invited, based on a schedule of prices which incorporated an approximate bill of quantities related as far as possible to the require-

ments for the schools to be built in each group. Subsequently full bills of quantities were prepared for each school to enable the final contract price to be determined for each group.

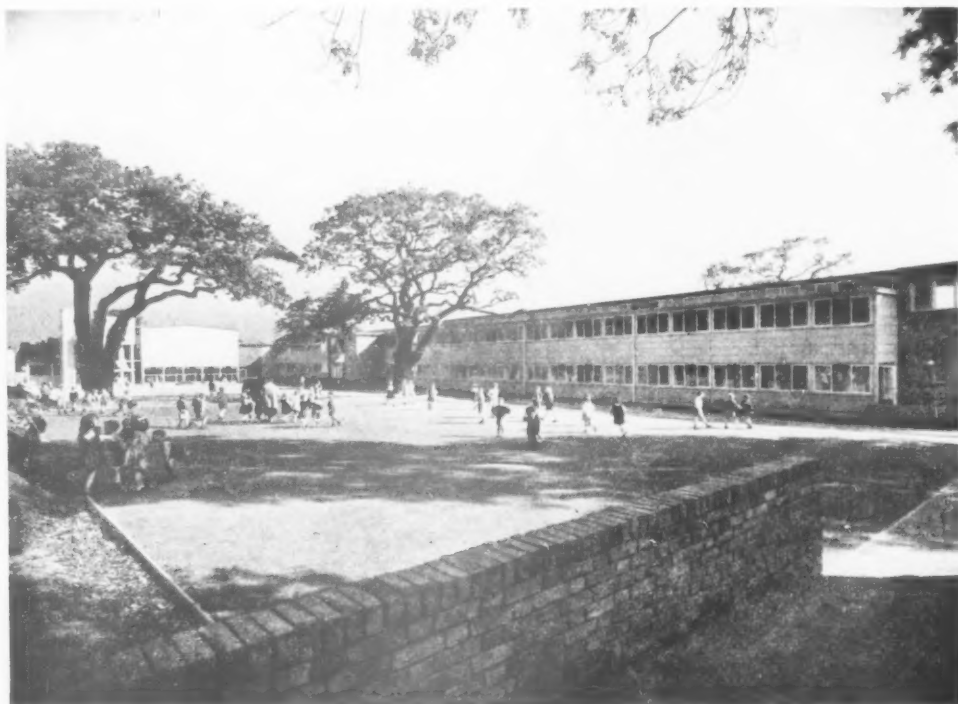
In order to ensure the reasonable delivery of the prefabricated components to the sites at the times required, a bulk order was placed in advance by the Council with Hills (West Bromwich) Ltd., for the fabrication and delivery of items such as: steel frame, precast floor and roof slabs, pressed steel fascias and roof lights, external precast wall cladding, external windows and pressed steel sub-frames, internal pressed steel trims. This firm was subsequently nominated as sub-contractors for the erection and fixing of the components.

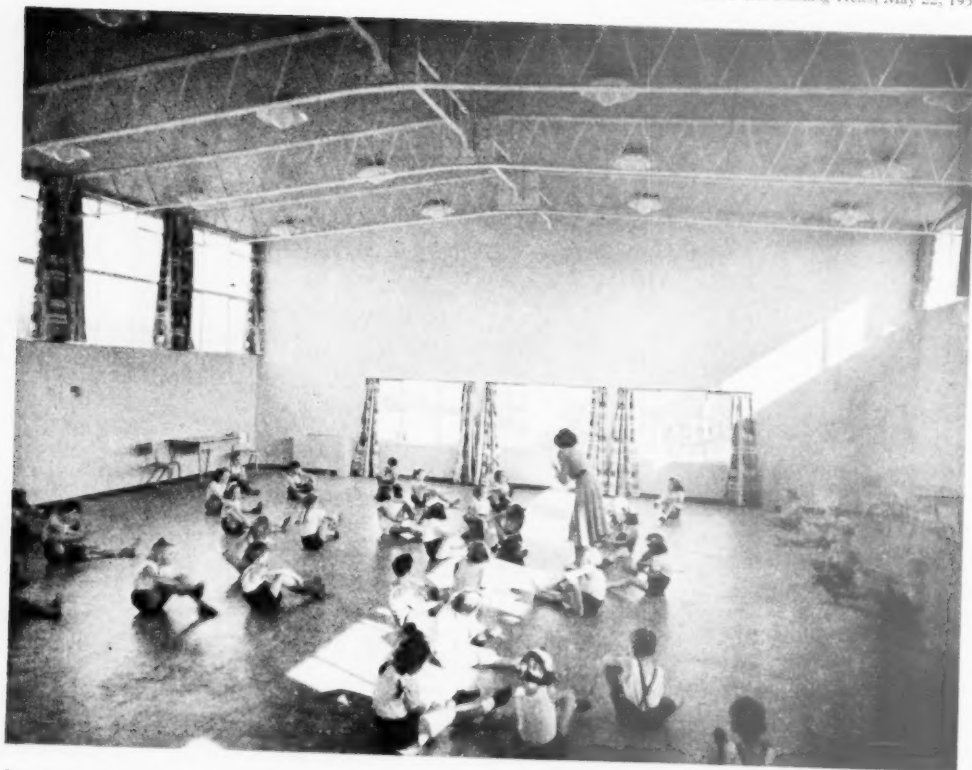
This new school at Denmark Hill which was officially opened last week is typical of the seventeen in the programme. The school, which accommodates 240 infants and 360 juniors has been designed to take full advantage of the natural features of the site. The classrooms face South across open playing fields, and large oak trees have been preserved.

Bold use of colour from the Munsell range has been

[Continued on page 605]

Playgrounds with Assembly Halls at the far end

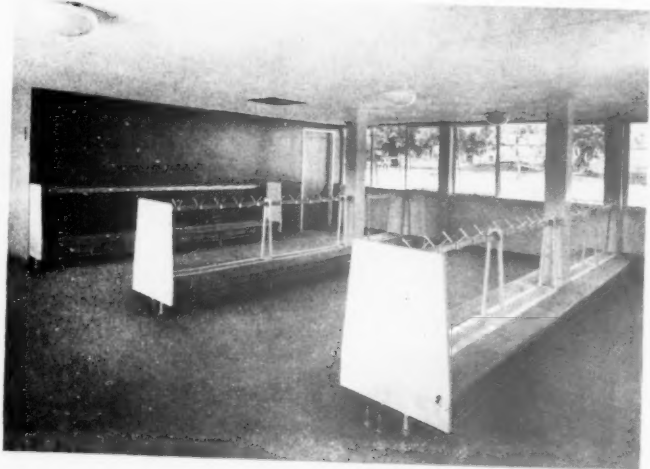




The Junior Assembly Hall

Sub-Contractors:

Cork flooring: John Aubanel Ltd.
 Electrical Installation: William Steward & Partners Ltd.
 Fabrics: Gerald Halsom.
 Fencing and Gates: Bayliss, Jones & Bayliss.
 Heating Installation: Engineer Service Installations Ltd.
 Ironmongery: Comyn Ching Ltd.
 Ironmongery: Hills (West Bromwich) Ltd.
 Plastering: Alan Milne Ltd.
 Plastic Lettering: The Lettering Centre.
 Sanitary Goods, Cloakroom Fittings: B. Finch & Co. Ltd.
 Sliding Tracks: Hill-Aldam Ltd.
 Steelwork: Hills (West Bromwich) Ltd.
 Suspended Ceilings: Merchant Trading Co. Ltd.
 Tanks: Braithwaite Ltd.
 Terrazzo: Marriott & Price Ltd.
 Wallpaper: Lines Bros.
 Wood Block and Lino Floors: New Floor Installations Ltd.



Infants' cloakroom bay with fittings designed by the architects

Continued from page 603]

used throughout the school, with stimulating shades in the circulating spaces, and bright areas in the classrooms, on lockers and other fittings.

Hand-made wallpapers are a feature in the main entrance hall, and on staircases, fabrics and furniture throughout the school were selected by the architects.

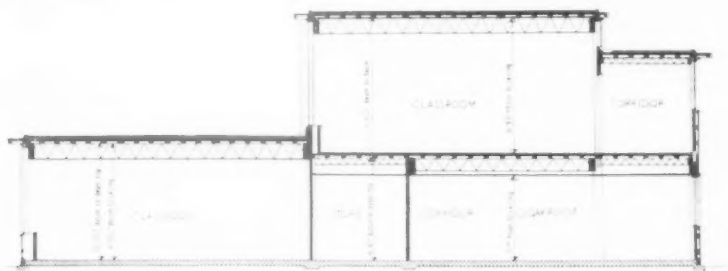
Construction

Framework: light steel on an 8ft 3in grid. *Floors and roofs:* pre-cast concrete spanning 8ft 3in. *External cladding:* precast concrete units faced

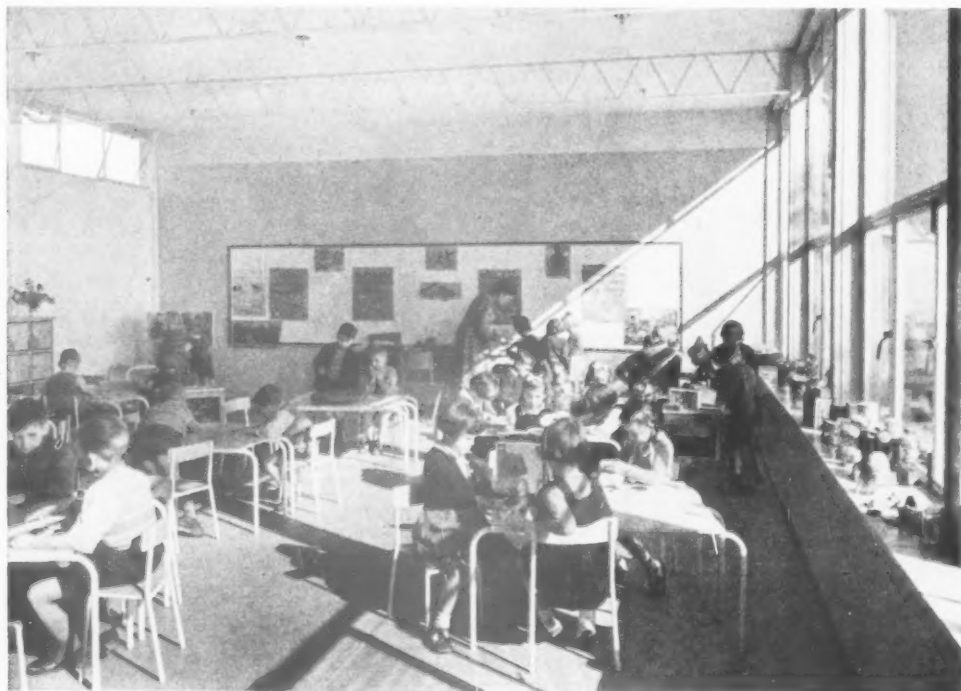
with white spar, grey granite and red granite. Central and West staircases are in load, bearing London Stock brickwork. Tank tower and boiler flue are in reinforced concrete finished with bush hammering and stone paint.

Floors: reconstructed York stone in the main entrance hall; cork tiles in infants' hall and corridors; wood block in junior hall and staff rooms; lino covered in classrooms.

The general contractors were Rush and Tompkins Ltd.



Typical junior classroom



BESSEMER GRANGE L.C.C. PRIMARY SCHOOL

Flower Boxes and Architecture

By W. R. WATSON-SMYTH, F.R.H.S.

ONE of the most striking developments in the appearance of Central London over the past six years is the enormous growth of the flower-box fashion. Although this is, in part, a revival of pre-war practice, it has now gone far beyond that stage and memories would need to be very long to remember when last it was exceeded. Last year the Festival of Britain gave impetus to the movement and, no doubt, next year's Coronation will have similar effect, but, useful as these events are to popularize such a welcome development, they are not sufficient to explain its continuance in normal years.

What, then, is the cause? The answer to this is that there are five reasons, all complementary to one another:—

- (1) The shabbiness of post-war London, coupled with the difficulty in obtaining licences to repair and redecorate, made many firms and individuals turn to flower-boxes as a way of brightening their frontages.
- (2) The need for something cheerful after the grim years of the war, coupled with the Government's lead in providing such boxes on all the Whitehall ministries, added weight to the movement.
- (3) Architectural fashion, influenced no doubt by the Scandinavian move to blend Nature with modern design, has moved away from the bleak lines of the nineteen-thirties and now attempts to relieve cold efficiency with living plants.
- (4) Comparative cost has been greatly reduced, partly by virtue of the fact that plants bear no Purchase Tax, but mostly because of the advent of the specialist window-box service run, on a contract basis, direct from nurseries on the outskirts of the Capital. One such service, with which the writer is connected, planted and serviced over 6,000 flower-boxes in Central London alone during the Festival year and it is, of course, operation on this scale which has played an enormous part in lowering costs and thus widening the market.
- (5) Lastly, encouragement from local authorities, Chambers of Commerce, Street Associations, etc. Such encouragement, (notably by the last Lord Mayor, Sir Denys Lawson, who deserves special mention), has been augmented by competitions, both amateur and professional, run annually by the London Gardens Society and the Worshipful Company of Gardeners for the best flower-box displays.

Of these factors, the third is, perhaps, at present the least important, but is likely to become more and more

important in future years. It is because of this that the writer feels that the possibilities and limitations of flower-boxes should be set out for the benefit of architects by one who is fully aware of all the problems, from the horticultural and floral decorating angle. In so far as we have been presented with the siting and design of such boxes, etc., on post-war buildings to date, our experience has been somewhat discouraging and this would seem to indicate the necessity for some guidance on the matter.

The primary consideration in deciding upon the siting of any such boxes must be the welfare and success of the intended plants. The matter of architectural convenience or artistic effect can only be secondary to this since nothing is gained, and much may be lost, by siting such boxes in such a position that success is virtually impossible.

In congested urban conditions, such as are found throughout most of Central London and other large cities, light is the most vital factor. The term light is used in its photographic sense and should not be confused with the matter of sunshine. With window-gardening, and this may surprise some gardeners, actual sunshine is comparatively irrelevant in such situations. Give us a due North aspect with plenty of uninterrupted light and we shall be far happier than in some dingy South-facing spot which can nevertheless boast that "we get the sun for most of the afternoon here." Now light, as photographers well know, is not an easy thing for the human eye to judge and, with plants, there are several special considerations to make. The most important, from the architect's point of view, is that all flowering plants and most foliage plants need uninterrupted top-light, that is to say that, if such is denied them through overhanging balconies, doorways, or similar, they will invariably become drawn and unhealthy. Those foliage plants which, collectively, have become known as "Danish plants,"—from the origin of their present cult.—are mostly averse to sunlight, preferring a northerly aspect and, sometimes, only succeeding in such a position. Few plants will tolerate any form of artificial light alone for long periods.

The second factor to consider is the design of the box, trough, tub, or other container in which the plants are to be set. For window-boxes, a minimum internal depth and width of eight inches should be provided. Skimpily little containers which the writer has sometimes encountered of late are quite useless. Build or make them deeper or wider by all means if other considerations allow. Depth of soil is a proportionate factor to success in many cases and certainly helps greatly by retaining moisture for longer periods. Drainage is frequently over-stressed by those whose

knowledge of window-gardening is limited or merely theoretical. True it must be provided for in some form, but it can easily be overdone and the writer's experience is that for every box which has failed through waterlogging of the compost, at least fifty have failed through drought. As long as provision is made for the certain escape of surplus water—no matter how slowly—that is all that should be done. Indeed, it is a good idea to provide the drainage holes or pipe an inch or two up the side of the box so that a small reservoir of water is kept in the bottom. Evaporation is remarkably quick in most window-boxes and would take care of this surplus without fear of stagnation occurring. Indeed, as an example of the water consumption of such boxes, it might be mentioned that one window-gardening service last year was delivering over 10,000 gallons of water onto its window-boxes in a single week during the hot weather in the West End and City. Allowing for wastage, this was the equivalent of about one and a half gallons per foot run of box per week, a statistic which may well prove surprising to the uninitiated.

Before leaving the question of drainage, we should mention that this varies in importance according to the material with which the box is constructed. Metal, other than lead, boxes, usually dry out most quickly owing to their poor insulation properties; next come plain wooden boxes, followed by zinc-lined wooden boxes, terracotta and cement, with stone as the best in this respect.

Finally, there are a miscellaneous collection of lesser, though at times important, factors. Amongst these may be listed wind and draught conditions, traffic fumes, smoke and accessibility. Shelter is, of course, preferable to very exposed and windy situations, but this point is less likely to be overlooked than the matter of draughts. Special attention to the question of draughts, which all plants abhor, should be paid where such boxes, troughs, etc. are being considered for passageways, doorways and entrances. Where sash windows are likely to be kept open for long periods at the bottom, a special danger exists for boxes in front which might otherwise be thought to be ideally situated. Smoke and traffic fumes are, of course, both detrimental to plant life, but some plants are much more able to tolerate such conditions than others and the specialist in such matters can generally find a satisfactory solution to all but the most extreme cases of trouble of this kind, although more frequent changes of plants, and, therefore, higher maintenance costs, will certainly need to be made. Accessibility would seem an obvious point, but it is often overlooked or underestimated in importance. Flower-boxes need to be watered and tended two or

three times per week through most of the year and their siting should be made with this fact fully in mind.

There is one factor which, although not horticultural, should be mentioned in addition. That is the matter of "drip." Architects and surveyors, it seems in the writer's experience, have an almost pathological horror of the dangers of drip from window-boxes. Properly made window-boxes, filled with a modern moisture-retaining compost and watered with ordinary commonsense, do not drip. The most they will do is to shed their surplus water, in a perfectly clean and harmless state, for a few minutes at most after watering. The writer has never had one single complaint on this matter of drip, its occurrence or effect, and has never found any building to be stained or damaged in any way as a result of the escape of water from properly filled window-boxes. Where plain earth is used for the filling of them, the matter may well be different as regards stain, but it is difficult to see how a little surplus water can harm a building designed, presumably, to stand against our English weather and a town atmosphere.

Not long ago, to give an example of the occurrences which have given rise to this article, my firm was called to advise on the filling and decoration of a large number of flower-boxes. A large building had been completely redesigned by a leading firm of architects and was beautifully laid out in modern style. One extremely large room, to be used as a restaurant, had a very high and unattractive ceiling. In an effort to overcome this fault, the architects had hit on the idea of breaking it up with lines of flower-boxes set about ten feet from the ground. This "bright" idea was duly carried out and then, only then, were we called in. Frankly, the whole concept was economically quite impossible. The building was for use of a charity which could not possibly afford the upkeep charges of such a scheme. The boxes were filled for the opening ceremony, everyone admired them. Since then they have lain empty, a pointless addition to the room, quite failing in their object. So they will remain. The story illustrates, perhaps, my original point. The horticultural or floral decorating angle must be considered first. The time to call the window-gardener in is before the boxes are decided upon. He can then show how nature can be co-operated with in their design and siting; neither he nor the architect can bully a way through for the sake of art or convenience.

Mr. L. M. Perrott, Jr., A.R.I.B.A., A.R.A.I.A., of Melbourne, Australia, has been awarded the John Edward Worth Prize of £40 by the Royal Sanitary Institute for his essay on "The Planning of Old People's Dwellings and the Provision of Communal Facilities and Services in Connection Therewith," in the 1951 Prize Competition.

The Building Industry and Finance

BECAUSE leaders of the building industry feel that the production of houses is being seriously hampered by financial difficulties resulting from Local Government payment methods, representatives of eight important Associations in the industry have met to consider steps to overcome the problem, which has also exercised the attention of those representing important sections of building labour.

The meeting was held in London under the chairmanship of Mr. W. S. Shirra, Chairman of the Distributors of Builders' Supplies Joint Council, and comprised representatives from the following:—

Federation of Master Builders; National Federation of Roofing Contractors; Federation of Associations of Specialists and Sub-Contractors; National Council of Building Material Producers; Building Industry Distributors; Federation of Painting Contractors; National Federation of Plumbers and Domestic Engineers; Distributors of Builders' Supplies Joint Council; Representatives of the Institution of Municipal Engineers were also present by invitation.

A statement issued says:—

The problem of finance is one which is having effect upon all types of building construction and repair work, but is most acute in connection with work undertaken on behalf of Government Departments, nationalized industries and local authorities.

The most serious difficulties arise in regard to house building for local authorities.

Views expressed at the meeting showed clearly that there were avoidable delays in payment by some local authorities to the builders contracting for them. It is essential for the building industry to have speedy payment in both the interim and final stages, as the Ministry of Housing and Local Government requires speedy completion of houses. Financing of the building industry is certainly a most important aspect of the housing problem to-day. It is inevitable that where previous experience has proved that payments are unduly delayed, those tendering for local authority work will be forced to consider this aspect in quoting prices. This means dearer houses. Prompt payment means the free flow of materials to the site. Prompt payment qualifies for monthly discount, which should reflect in lower prices. These financial aspects of the problem and their effect on the speedier completion of houses should be brought home in the strongest possible manner to the Government, local councils and, especially, to the ratepayers.

There was general agreement that if the recommendations contained in Circular No. 42 (1952) recently issued by the Ministry of Housing and Local Government were fully implemented, these would go a long way in achieving the purpose desired. These included recommendations to local authorities to use the standard form of contract with its amendment, to take adequate steps to ensure payment being made within the time stipulated in the contract, to avoid alteration in design and equipment of houses during the progress of the work, and to take steps to reduce the total amount of money withheld from the contractor under retention clauses.

Much will now depend upon the extent to which all local authorities will follow the advice given by the Ministry. The Standing Orders of many local councils may be an impediment to the

prompt adoption of certain of the recommendations, but no time should be lost in revising these in order that the housing surveyors may have reasonable freedom to act.

Government Departments and nationalized industries will find that in principle the present recommendations of the Ministry in regard to Housing Contracts, have useful application in other fields of building construction.

This financial problem is regarded as just as important at present to the National Building Programme as either the question of materials or labour, and if productivity is to be maintained or increased and continuity of work assured for the essential building labour force, all impediments to the settlement of accounts in proper time must be removed.

The following represents an expression of view of the Federation of Specialists and Sub-Contractors, and should be considered as that body's alternative to paragraphs in the foregoing statement:—

It was generally agreed by those present at the meeting that there were serious delays in payment by local authorities to builders under contract to them. This may well be a result of present-day conditions under which the initiation and ultimate control of building projects are vested in committees which inevitably lack the flexibility and rapidity of decision of the individual building owner. The Ministry of Housing and Local Government, however, in the national interest and other Departments and nationalized industries in their spheres are demanding speedy construction. This means however that the effective and economical use of labour must be facilitated by a free flow of materials to the site; and this in its turn must not be impeded by financial stringency resulting from the freezing of the contractor's financial resources. If the contractor's own resources are unnecessarily tied up in completed work for which payment could have been made, he is thrown back upon credit and borrowed capital. This in turn must mean an addition to the cost of building to offset bank charges and the loss of cash discounts earned by prompt payment, even though credit for these latter is commonly assumed by building authorities though they do not themselves pay promptly.

These financial aspects of the problem and their effect on the speedier completion of houses and other nationally important building should be brought home in the strongest possible manner to the Government, local councils and especially to the ratepayers. The Ministry of Housing and Local Government has recently issued a Circular (No. 42 (1952)) containing recommendations to local authorities which are designed to meet these difficulties. It was generally agreed that should these recommendations be fully implemented they would go a long way in achieving the purpose desired. They included recommendations to local authorities to use the standard form of contract without amendment; to take adequate steps to ensure payment promptly at the times named in the contract of the maximum sums due from time to time; to avoid alteration in design and equipment for buildings during the progress of the work; and to take steps to reduce the total amount of money withheld from the contractor under retention clauses or due to him under any contractual conditions governing the variation of prices of labour or materials during the currency of the contract.

Information Digest

OFFICIAL PUBLICATIONS

- **British Standard Codes of Practice** issued by British Standards Institution, 24, Victoria Street, S.W.1. Telephone ABNEY 3333.
- **British Standard Code of Practice C.P.402.101 (1952).** Hydrant Systems. Price 2- post free.

This Code has been prepared for the Council for Codes of Practice by a Committee convened by the Institution of Mechanical Engineers, and is now issued in its final form. The Code deals with the question of Hydrant Systems in buildings or within boundaries of sites occupied by buildings. The object of such systems is to provide at convenient points throughout premises immediately available and suitable water supply for fire fighting purposes. The Code describes the two main types of hydrant system, gives definitions, lists the British Standards appropriate to the various materials, appliances and components and gives advice on such matters as water supplies, hydrants, hose and similar matters in the design considerations section. Further sections of the Code are devoted to work on site, inspection and testing of maintenance.

British Standard Code of Practice C.P.402.201 (1952). Sprinkler Systems.

This Code now issued in final form has been prepared for the Council for Codes of Practice by a Committee convened from the Institution of Mechanical Engineers. The Code deals with the provision of automatic sprinkler installations in buildings, the functions of such an installation being to provide a means of automatically extinguishing or controlling a fire in its early stages by a system of overhead pipes on which sprinkler heads operated by temperature increase are fitted at intervals. The Code deals with general principles of sprinkler installations, gives definitions, describes the various materials, appliances and components, giving a list of the appropriate British Standards, and under design considerations gives recommendations concerning the type of installation suitable for different conditions, type of sprinkler head, method of operation, protection against freezing, and other important matters in relation to the design of sprinkler systems. The Code concludes with sections on work on site, inspection and testing, and maintenance.

- **Building Research Station Digest No. 40.** Issued by the Building Research Station, Garston, Nr. Watford, Herts. Aluminium and Aluminium Alloys in Building—Part II. Price 3d.

Digest No. 39, the first part of this series, was referred to in the last Information Digest, and this publication deals with the application of the materials referred to in No. 39, to a specific range of building components. It includes recommendations on the selection of alloys and the attractive treatments for the components. Some of the present series include frames, roof trusses, etc., roof coverings, external wall claddings, internal walling and other panels, door and window sub-frames and windows, weatherings and flashings, rainwater goods, electrical conduit, various decorative uses and furniture fittings such as kitchen units, sinks and draining boards. The digest selects several of these items, namely windows, glazing bars, rainwater goods and decorative metal work, for special consideration and recommendations.

- **Choice of Careers. Series No. 24: "The Bricklayer."** Published by the Central Youth Employment Executive. Issued by Her Majesty's Stationery Office, York House, Kingsway, London, W.C.1. Price 1-.

A new booklet, "The Bricklayer," has been published in the "Choice of Careers" series of booklets which are issued by the Central Youth Employment Executive and intended primarily for the guidance of boys and girls who are de-

ciding what form of work to take up on leaving school. The latest booklet is one of a group designed to introduce readers to the wide choice of occupations open to them in the Building industry and also give information about the qualities and training required by boys who enter the various occupations. They give an idea of the kind of work done in the industry and of the day to day working life of the men employed in it. The booklet is illustrated with some good photographs although the architectural aspect of the illustrations leaves a good deal to be desired. The publication should be of use and interest to anyone considering bricklaying as a career.

- **Ministry of Works Advisory Leaflet No. 25. Painting Woodwork.** Published by Her Majesty's Stationery Office, York House, Kingsway, W.C.2. Price 3d.

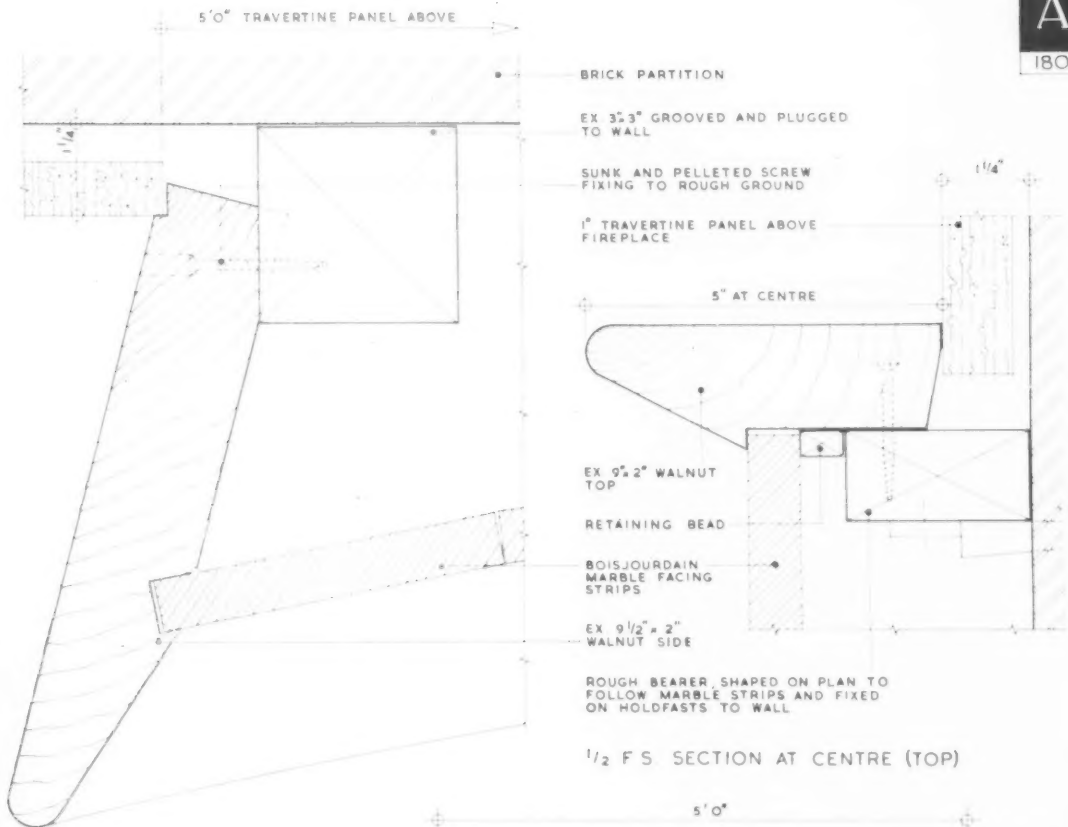
The Leaflet explains the possible causes of failure—too often wrongly blamed on the quality of the paint—and describes the precautions to be taken to avoid them. The main cause of premature failure is moisture, either in the wood or entering later with faulty workmanship. Notes are given on the proper preparation of the wood surface, including the treatment of knots. Emphasis is laid on the necessity for thorough priming of all surfaces of new wood in order to get a sound job. Advice is given on choosing the right priming paint for exterior and interior work on various kinds of wood. There follow hints on undercoating (two undercoats are recommended) and finishing; and a section is devoted to the preparation of old paintwork for repainting. The leaflet includes a handy table of "Defects and Their Causes," in which the possible causes of failure are tabulated and analysed. The Ministry's Advisory Leaflets are designed mainly to meet the needs of the small builder, clerk of works, foreman and craftsman, for information in practical form and simple language about the results of research and the latest developments in building practice.

- **Department of Scientific and Industrial Research. Forest Products Research Laboratory Timber Leaflets.** Issued by Forest Products Research Laboratory, Princes Risborough, Aylesbury, Bucks. Telephone: Princes Risborough, 101-2. Free.

A recent information digest referred to the new leaflets prepared by the Forest Research Laboratory, on the Colonial timbers now being imported into this country. A further six leaflets on various timbers have now been issued in a standard form and are available on application from the laboratory.

- **The Suction of Moisture held in Soil and other Porous Materials. Road Research Technical Paper No. 24.** Prepared by the Road Research Laboratory. Issued by Her Majesty's Stationery Office. Price 2-.

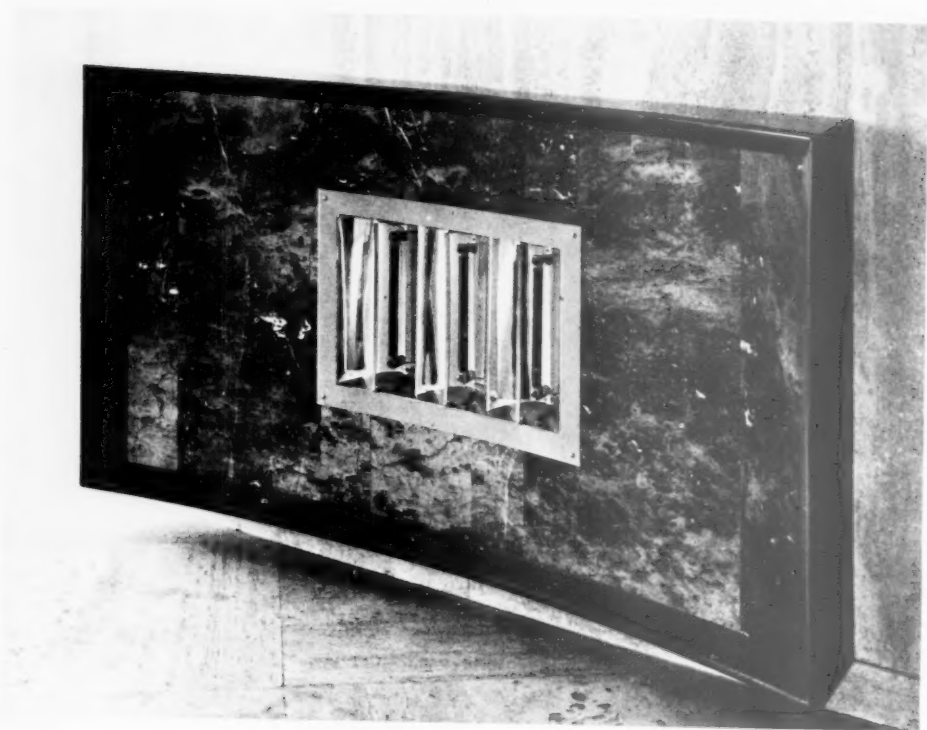
The strength of a soil depends principally on the amount of water it contains. Movements of moisture in soil foundations may therefore affect the stability of structures which the soil supports. These movements depend on the suction or reduced pressure at which the water is held in the soil. Road Research Technical Paper No. 24, published to-day, describes ways of measuring the suction of moisture held in soil and other porous materials. The importance of suction measurements lies in the knowledge which they can give of the relationship between moisture content and suction. This enables an estimate to be made of the final moisture condition and strength which will be reached in a soil foundation after movements of moisture have ceased. The suction of held water rises from zero for materials immersed in water to thousands of atmospheres in an oven dry material. No one method can be used for measuring the suction over this wide range. The Paper describes



SECTION AT CENTRE

KEY ELEVATION

SCALE: 3/4" = 1'0"



ENTRANCE HALL FIREPLACE, DIAMOND OFFICES, BASINGSTOKE
ARCHITECTS: MOIRET & WOOD



BRIDGEND
PAPER
MILLS,
S. WALES



PACKING ROOM DETAIL

*Henry Budgen
& Company
Chartered
Architects*

HOPE'S

HOT-DIP GALVANIZED WINDOWS

HENRY HOPE & SONS LTD., BIRMINGHAM & 17 BERNERS ST., LONDON, W.1



THE Shopfronts and Interior Equipment for the above Building of Messrs. Booker Bros., McConnell & Co., in Georgetown, British Guiana, were constructed by us under the supervision of the Architects:—Messrs. Watkins, Gray & Partners, F.F.R.I.B.A., and constitute one of the many contracts entrusted to Sage in the West Indies by these Architects. Other contracts executed or in course of manufacture include:—

Sandbach, Parker & Co., Ltd.,
British Guiana.

Singer Sewing Machine Co., Ltd.,
British Guiana and Trinidad.

D. Henderson & Co., Ltd.,
Jamaica.

We co-operate with Architects for carrying out contracts in any part of the world and the services of our highly skilled staff are available for the production of designs, specifications and estimates of costs.



FRED K.

SAGE
& CO. LTD.

HOLBORN HALL • GRAY'S INN RD • LONDON W.C.1
Telephone : Holborn 7822 Telegrams : Sage · Holb · London

and at GLASGOW • BELFAST • BRUSSELS • JOHANNESBURG & BUENOS AIRES

detailed laboratory procedures for the nine principal methods of suction measurement. These are the suction plate, tensiometer, centrifuge, pressure membrane, consolidation, freezing point depression, vacuum desiccator, sorption balance and electrical resistance methods. The range covered by each method is stated. The methods given in the Paper can be applied, not only to civil engineering problems, but to the study of soil in agriculture and to the behaviour of porous materials used in the ceramics industry.

PROFESSIONAL AND TRADE ASSOCIATIONS PUBLICATIONS

- **BISRA Survey, April, 1952.** Issued by the British Iron and Steel Research Association, 11, Park Lane, London, W.1. Telephone: Grosvenor 4751. Free.

This survey contains a number of articles on steel production and research carried out by the various steel firms.

- **More about Rubber in Roads.** by L. Mullion and A. R. Smee. Issued by the British Rubber Development Board, Market Buildings, Mark Lane, E.C.3. Telephone: Mansion House 9383. Free.

This new booklet is a successor to Rubber Powder in Asphalt Roads, which was issued by the Board in 1950. Since that date more experimental work has been carried out and new data has been acquired. The recent research work has confirmed the belief that natural rubber can play a great part in bituminous road surfacings and the booklet gives details of results obtained both in the laboratory and on a number of actual road surfaces which have been recently laid. Stretches of road where a proportion of rubber powder has been added to the bitumen have been laid in Great Britain, America, South Africa, Australia and elsewhere.

- **The Tint Retention of Coloured Paints based on White Pigments.** Issued by the Zinc Development Association, Lincoln House, Turl Street, Oxford. Telephone: Oxford 47988. Free.

This booklet describes a co-operative programme of exposure tests carried out by the Z.D.A., a report on which was presented to the Oil and Colour Chemists Association by Mr. C. T. Morely-Smith, B.Sc., F.R.I.C. The reprint of the Paper is preceded by a non-technical introduction, and is illustrated by six colour plates and numerous graphs and tables showing the behaviour of 12 white pigments or pigment mixtures in combination with 13 colours during exposure tests lasting 15 months and carried out at six sites under diverse climatic conditions. The text is concluded by an account of the discussion which followed the presentation of the Paper. One of the most interesting features of this investigation, during which over 10,000 shade card readings were accumulated, was the consistency of the results obtained at all sites. Although the degree of fading varied widely from one place to another, the orders in which the six observers placed the various panels were very similar. Zinc oxide stood out as easily the most effective white pigment with an average tint retention over the whole 13 colours of 75 per cent, and was followed by lithopone with 55 per cent. There seems no doubt that this contribution to the available knowledge on the subject will be of great interest not only to those engaged in working out the best formulae for paint composition but also to all users of paints exposed to the vagaries of the weather.

- **Thirty-second Annual Report.** Issued by the British Non-Ferrous Metals Research Association, Euston Road, N.W.1. Telephone: Euston 6411. Issued to members of the Association.

This thirty-second annual report includes a general report of the Association, review of research progress in 1951, a list of researches and a list of confidential reports available to members. In addition, the Association's published reports and other documents are listed, together with lists of the membership of the Council and various committees, with a complete note of members and subscribers to the work of the Association.

- **Recommended Domestic Solid Fuel Appliances. List No. 4.** Issued by the Coal Utilization Council, 3, Upper Belgrave Street, London, S.W.1. Telephone: Sloane 9116. Price 6d.

This publication lists all the appliances which comply with prescribed standards, and those recommended by the Ministry of Fuel and Power for Local Authority housing being specially marked. Copies of this list have been sent to all housing authorities by the Ministry of Housing and Local Government, for information, and should be of interest to all architects concerned with local authority housing work. Names and addresses of the various manufacturers are given and notes on the various types of solid fuel appliances and the type of fuel they consume.

- **School Construction 1951.** Issued by the Councils and Education Press Ltd., 10, Queen Anne Street, London, W.1. Price 10 6.

This publication is a reprint of various articles which have appeared in 1951 in the School Construction Section of "Education" the official organ of the Association of Education Committees. It includes descriptions and plans, photographs and drawings, of a number of schools completed in 1951, and forms a useful record of these buildings. Such schools as the Hertfordshire buildings by C. H. Aslin are conspicuous for the high standard of architectural character in comparison with some of the more traditional type of buildings, although the influence of the Hertfordshire schools can be seen throughout the publication.

TRADE PUBLICATIONS

- **Gyproc 1951-1952.** Issued by Gyproc Products Ltd., Morris House, 1-5, Jermyn Street, London, S.W.1. Telephone: Whitehall 8073 4. Free.

First issued in 1949, this publication was an attempt to supply the need, which undoubtedly existed throughout the building industry, for concise information, in a convenient form, dealing with plastering practice in general and the products and systems of Gyproc in particular. It aimed to simplify the task of those who would be concerned in specifying and using these products and systems. The contents of the present edition have been enlarged and modified to keep abreast with recent developments. The book is divided into twelve main sections, dealing first with the principal products, then with the various systems of construction, and finally with specialized products applied to thermal and acoustic insulation, fire protection and the like. The Plaster Section includes comprehensive notes on plastering practice with detailed plastering specifications for various surfaces. The final section summarises the technical characteristics of some thirty different partition and ceiling constructions. The book is liberally illustrated with photographs, or drawings where these convey the information more satisfactorily. The bound volume was felt to be the most convenient format for architects and others. The individual sections are also supplied separately for convenience of filing and general office use, and for answering trade enquiries.

- **Properties of Noral Alloys.** Issued by the Northern Aluminium Co. Ltd., Banbury, Oxon. Telephone: Banbury 2242. Free.

This publication replaces the Noral data sheet which first appeared in October, 1945. The new booklet covers the latest additions to the range of Noral Alloys and includes general notes on aluminium and its alloys with seven tables to show the properties of the principal alloys in the form supplied by the Northern Aluminium Co.

- **Permacote Emulsion Paint.** Issued by Solignum Ltd., Donington House, Norfolk St., Strand, London, W.C.2. Telephone Temple Bar 0024. Free.

This leaflet describes a new paint marketed by Solignum, Ltd., based on non-oxidizing oil-free plastic resin dispersed in water. It is claimed the emulsion is as easy to apply as a water paint and when dry gives a tough, elastic, durable and washable film. It can be used internally or externally, and on almost any surface including plaster, cement, asbestos cement sheeting, stone, wood, wall board, brick, glass, pre-

viously painted surfaces and over wall-paper. The paint is ready mixed for use and dries in 15-30 minutes with a smooth, satin finish. One coat is often adequate but a second coat can be applied after three hours, and the paint can be scrubbed after 72 hours. It is supplied in a range of colours and is claimed to be the perfect satin finish for walls and ceilings for a variety of buildings. The manufacturers claim that it stands repeated washing, is fire-retarding, odourless and will not promote mould growths. Full particulars and colour card can be obtained from the manufacturers.

- **Hope's Windows.** Published by Henry Hope & Sons Ltd., 17-18, Berners Street, London, W.1. Telephone: Museum 8412. Free.

This new catalogue issued by Henry Hope is a valuable reference publication for all architects offices. Every type of window made by the company is shown with photographs and excellent full-size details and general specification. In addition, a large number of photographs and drawings of special windows and the buildings in which they were used are included; the whole publication being a most valuable addition to any architect's library and one which will be in constant demand on the drawing board. The high standard of the drawings and general production are a great credit to the firm concerned, and make it one of the best catalogues received for a very long time.

- **The Outshining Light.** Issued by B.T.H., Crown House, Aldwych, W.C.2. Telephone: Temple Bar 8040. Free.

This publication is volume 2, No. 1, the architectural issue of the Mazda Lighting Journal and includes a number of interesting articles including one on the contemporary approach to lighting by Donald Dewar-Mills, an article on cornice lighting by P. D. Figgis, a review of lighting at the Building Centre and an article on lighting for control rooms in power stations. The journal is well illustrated by both photographs and drawings.

- **Lustrex.** Issued by Monsanto Chemicals and Plastics Ltd., Allington House, Allington Street, London, S.W.1. Telephone: Victoria 8131. Free.

This publication describes the Monsanto product known as Lustrex and illustrates the method of manufacture and use. The material in question is a pure form of Polystyrene with a wide range of clear, opaque or translucent colours and a clean finish. It is strong and light, can be easily moulded and has excellent optical characteristics. It has a wide range of applications in the manufacture of such articles as radio cabinets, household utensils, electric and domestic appliance parts and toys. The booklet is exceptionally well produced with some excellent colour photographs.

- **Festival of Britain.** Issued by the Dunlop Rubber Co., St. James's House, London, S.W.1. Telephone: Temple Bar 2758. Free.

A photographic record of the contributions they made to the Festival of Britain has been produced by Dunlop and Associated Companies in a commemorative volume just issued. The cloth-bound, loose-leaf volume of illustrations shows the scope and extent of Dunlop contracts and exhibits in the field of building and architecture. Vinyl tiles and Sematic decorative flooring appeared in many sections of the main exhibition. The special mosaic in the Seaside Section was carried out with a resilient mortar supplied by Semtex Ltd. Dunlop rubber flooring was used in the bathroom in the Homes and Gardens Pavilion, and the Dunlopillo cushioning was supplied for the wall seating in the "Festival Inn" at the Exhibition of Architecture, Lansbury, Poplar. At the South Bank site alone, there were more than 30 separate Dunlop contracts and exhibits.

- **"This is your Problem."** Issued by the Bylock Electric Limited, South Street, Enfield, Middlesex. Telephone: Howard 2081. Free.

This leaflet gives details of the hot-air drying units made by the firm as an alternative to the normal towel in lavatories and cloakrooms. The manufacturers claim that the use of these machines is more economical than roller towels and

also more hygienic. The machines are made in five different types, pedestal and wall mounted, operated electrically. A movable-head type is available where the drying of both hands and face is required. It is estimated that hand drying takes 35-40 seconds with one of these machines.

- **Twentieth Annual General Meeting.** Issued by the Electric and Musical Industries Ltd., Hayes, Middlesex. Free.

This annual report gives an outline of the Electric and Musical Industries Companies and a description of some of their factories. The group of companies manufacture gramophone, radio and television equipment.

- **Fixing Devices and Tools.** Issued by the Rawplug Co., Cromwell Road, S.W.7. Telephone: Frobisher 8111. Free.

This series of leaflets describes the many fixing devices marketed by Rawplug, Ltd., whose name has now become almost a household word in this particular field. Among the new products are the durium-tipped drills which can be used for making a clean and speedy hole in any hard material (except metal) including brick, stone, tile, marble and slate. Special slow speed electric drill has been introduced by the company for use with the new durium drills.

- **Aluminium News, 1952.** Issued by the Aluminium Union Ltd., Box 6090 Montreal, Canada.

This issue of Aluminium News contains a number of interesting items including the adjustable aluminium chair designed in Germany by August Förscher, for use in doctors, dentists, and hairdressers establishments; the back and head support being adjustable in height and incline by means of a simple mechanism. The other interesting item is the Geodesic dome designed by Buckminster Fuller, in aluminium. This is a remarkably ingenious invention based on a system of equal length members fixed together to form a skeleton dome. It is claimed that constructions of this sort can be built with the spans up to 800 feet, and illustrations show a small unit of 49 feet diameter which was erected in 45 man hours. The dome supports itself while being built and requires no scaffolding, and is completely demountable. It is suggested that this form of construction could be used for aircraft hangars, temporary exhibition halls and even summer living accommodation. The normal enclosing material is either in the form of a wind-proof plastic fabric skin or possibly other locally available lightweight material.

CORRECTIONS

In Information Digest, April 10, under the heading of Dexon News, it was stated that Dexon material was available in 10in lengths, this should, of course, read 10ft lengths. Reference was also made to the International Lighting Review, published by Messrs. Philips Electrical, Ltd., and it was stated that this publication was free. We have been informed that the number of copies available is limited and they have all been taken up by private subscription.

We regret that in Information Digest of May 10, 1952, the price of B.S.65, B.S.540:1952 was quoted as 5s each, this should read 3s each.

ALSO RECEIVED

Distribution of Electricity. No. 191, Volume 24, March 1952. Published by W. T. Henley Telegraph Works Ltd., 95, Aldwych, W.C.2. Price 6d.

Strip Heating, by P. M. Lacey (Bulletin No. 109). Issued by the Technical Services Department, Aero Research Limited, Duxford, Cambridge. Sawston 187. Free.

University College Annual Report, 1950-51. Published by the University College, University of London. Price unstated.

What we Make and other Publications. Issued by Air Control Installations Ltd., Ruislip, Middlesex. Ruislip 4066. Free.

Bakelite Progress. Issued by Bakelite Limited, 12-15, Grosvenor Gardens, S.W.1. Sloane 9911. Free.

Lighting Catalogue. Falk, Stadelmann & Co. Ltd., 91, Farringdon Road, London, E.C.1. Holborn 7654. Free.

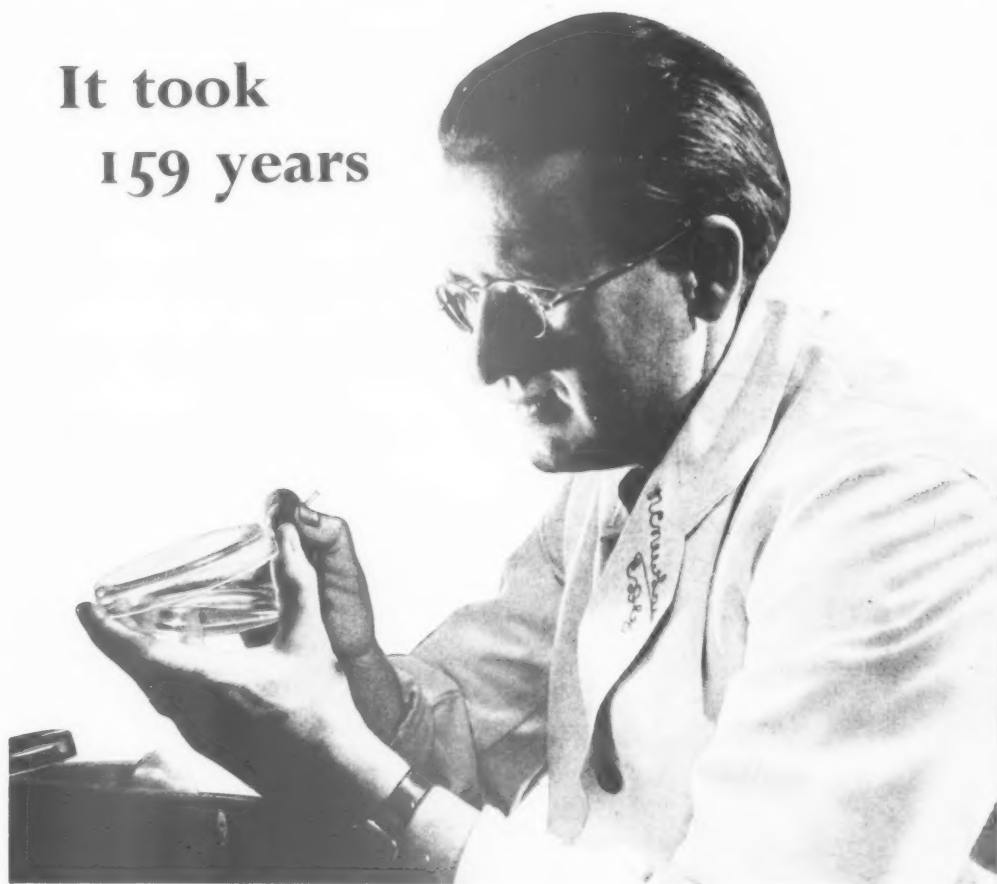
Spraying Aerated Concrete. Aerocem Ltd., Rolands Wharf, 71 Lots Road, Chelsea, S.W.10. Free.

Review of Progress, 1951. The United Steel Companies Ltd., 17, Westbourne Road, Sheffield 10. Free.

G.E.C. Floodlighting and Fluorescent Fittings Catalogues. The General Electric Co. Ltd., Magnet House, Kingsway, W.C.2. Free.

Specifications for Aluminium and Aluminium Alloy

It took 159 years



In the laboratories at Newton Chambers are men with a single-minded attachment to scientific truth, men who wage a continuous war against bacteria and disease. It is this research staff which, generation by generation, has discovered

and developed germicides and disinfectants such as Izal, Sanizal and Zal that are household names today. *At Newton Chambers every present-day development is inspired by 159 years of service to the community.*

Newton Chambers & COMPANY LIMITED, THORNCLIFFE, SHEFFIELD

HEAVY CONSTRUCTIONAL ENGINEERING, EXCAVATORS, INDUSTRIAL AND DOMESTIC HEATING APPLIANCES
FUEL ECONOMISERS, IZAL AND OTHER CHEMICAL PRODUCTS.

★
EXTRUSIONS TUBES & FORGINGS

SOUTHERN FORGE

IN ALUMINUM ALUMINIUM ALLOYS

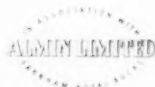


★
Photograph
Telescopic Gangway
Queen Elizabeth, Southampton
Built by S.M.S. in 1951

★
Southern Forge extrusions were used extensively in the construction of the all-aluminium Telescopic Gangways recently completed at the Ocean Terminal, Southampton. The designer has taken full advantage of the unique characteristics of aluminium alloys—lightness, strength and weather resistance.

SOUTHERN FORGE LTD • MEADFIELD ROAD • LANGLEY • BUCKS

TELEPHONE • LANGLEY 301



Products. 5th Edition. Issued by Northern Aluminium Co., Ltd., Banbury, Oxon. Free.

Extravert Window Fans. Keith, Blackman Ltd., Mill Head Road, Tottenham, N.17. Free.

Durasteel Leaflet. Issued by Durasteel Ltd., Oldfield Lane, Greenford, Middlesex. Free.

Simplex Lundberg Switch Leaflet. Issued by Simplex Electric Co. Ltd., Broadwell, Oldbury, Birmingham. Free.

Mass-impregnated Non-Draining Cables Catalogue. Issued by British Insulated Callender's Cables Ltd., Norfolk House, Norfolk Street, London, W.C.1. Temple Bar 7722. Free.

Stramit Advertising. Issued by Stramit Boards Ltd., Packet Boat Dock, Peachey, Uxbridge, Middlesex. Free.

"Vybak" Flexible Injection Moulding Compounds.

Issued by Bakelite Limited, 18, Grosvenor Gardens, S.W.1. Free.

De Vilbiss Aerograph. Issued by the Aerograph Co. Ltd., Lower Sydenham, S.E.26. Free.

Flexible Cords. Issued by W. T. Henley's Telegraph Works Co. Ltd., 95, Aldwych, W.C.2. Free.

Occupational Dermatitis (Barrier Creams). Issued on behalf of Innox Laboratory, 21, Warling Street, E.C.4. Free.

Brick Catalogue. Issued by the Hammill Brick Co. Ltd., Eastry, Sandwich, Kent. Eastry 231 2. Free.

Electronic Instrumentation as applied to the Study of Vibrations in Industry, by S. F. Smith. Reprinted from The Society of Engineers, 17, Victoria Street, S.W.1. Transactions.

LEGAL NOTES

Town Planning—Uncompleted Works for the Erection or Alteration of a Building

UNDER s.78(1) of the Town and Country Planning Act, 1947, where any works for the erection or alteration of a building have been begun but not completed before the appointed day (July 1, 1948), then if immediately before that day those works could have been completed in conformity with the provisions of a planning scheme, or of permission granted thereunder, or in accordance with permission granted by or under an interim development order, and if any permission required under the Restriction of Ribbon Development Act, 1935, had been given, planning permission is to be deemed to be granted under Part III of the Act of 1947 in respect of the completion of those works.

The object of this provision in the view of the Court of Appeal, as expressed in the recent case of Marks and Spencer, Ltd. v. L.C.C. (1952) W.N. 207 is to afford protection to building owners, who, on the strength of a planning permission obtained under the previous Town Planning Law, i.e., before the Act of 1947, have incurred expenditure in the execution of work with a view to carrying out a contemplated development.

The question as to whether works for the erection of a building had been begun (but not completed) for the purpose of s.78(1) of the Act of 1947 was one of the important points determined by the Court of Appeal in Marks & Spencer, Ltd. v. L.C.C. and their decision on this point is of importance since it reversed the ruling of the judge in the Court below.

The material facts were that the Appellant Company had in August, 1937, entered into a building agreement relating to a large site. Under this agreement the company were to demolish the old buildings on the site and to begin such demolition by Midsummer 1938, and to erect new buildings, which were to be completed by Christmas, 1939. These time limits were extended from time to time and on June 9, 1939, the company entered into a contract with a firm of demolition contractors, for the demolition of the building on the site, and this work of demolition was completed by August 2, 1939. The work of demolition included the clearance of cellars under the old buildings, part of which were intended to be used in connection with the new buildings to be erected, although further excavation would have been necessary. At the time of entering into the contract for the demolition the company intended

after its completion to proceed with their rebuilding scheme. The building project, however, remained in abeyance during the war, but the company, it was found as a fact, had never abandoned that project.

Mr. Justice Harman in the court below, took the view that inasmuch as only the demolition work had been carried out, but no contract for the erection of the new building had been entered into before July 1, 1948, it could not be said that work for the erection of a building had been begun but not completed before July 1, 1948, for the purposes of s.78(1) of the Act of 1947. Had, however, such a contract been entered into before July 1, 1948, then the position might have been otherwise, although no further work other than the work of demolition had been undertaken.

The majority of the Court of Appeal, however, differed from the learned judge on this point.

In the view of Jenkins, L. J., the intention of s.78(1) made it relatively of little importance whether the actual work in question was work of demolition or of construction, provided that the work did genuinely form part of the operations necessary to carry out the building project in question.

The words of the section were of wide import and included in terms operations which were not in themselves building operations. It was enough if on the facts, operations had been carried out on the site, which were part of the totality of operations necessary on that site for the purpose of carrying to completion the particular building project. Stress was also laid on the fact that the company throughout had never abandoned their building project. In commencing and carrying out the work of demolition, the company had begun work for the erection of a building.

The further point of interest in this case is as to the circumstances in which previous planning permission is to be regarded as having been given under the previous law, which in this particular case, was the Act of 1932 and the General Interim Development Order of 1933. Under s.10(3) of the 1932 Act, the authority was empowered, *inter alia* to grant the application for permission to develop unconditionally or conditionally. But the subsection went on to provide that the authority was to be deemed to have granted an application *unconditionally*, unless within two months from the receipt thereof, or within such longer period as the applicant may agree in writing to allow, they gave notice to him that they had decided to the contrary stating their reasons for so doing.

In this case the company had on August 9, 1938, received conditional permission, one of the conditions being that the work should be begun and completed within 18 months of August 1, 1938,

leaving which the consent should become null and void.

The Court of Appeal considered that this condition as to time was quite validly imposed, but as the authority had failed to state their reasons for granting the permission, *conditionally*, they were to be deemed, by the concluding words of s.10(3) to have granted the application *unconditionally*.

The company therefore satisfied both the requirements of s.78(1) of the Act of 1947 in that works for the erection of a building had been begun (but not completed) before July 1, 1948, and further permission had been granted for such work by or under an interim development order.

In the circumstances therefore the L.C.C. were not entitled to prohibit the execution of the work.

City and Guilds' Consultative Committee

Discussions have recently been taking place between the Education and Training Committee of the National Federation of Building Trades Employers and the City and Guilds of London Institute with regard to the setting up by the Institute of a consultative committee for the building industry.

The Executive Committee of the N.F.B.T.E. has now approved the appointment of Messrs. Harvey G. Frost (Bury St. Edmunds), and D. E. Woodbine Parish (London), as the Federation's first representatives on the consultative committee.

The committee will have no responsibility in regard to the conduct of examinations, each of which or each group of which already has its own advisory committee, but will be available for consultation by the Institute when questions arise regarding the adequacy of existing examinations and the need for alterations and extensions.

The Leeds Medal

In the Will of Mr. W. Hoffman Wood the "Leeds Medal" is to be awarded to the artist, born in Yorkshire within 60 miles of Leeds Town Hall, completing the best painting, sculptural or architectural work during 1952. Consideration is now being given by the Trustees for the "Leeds Medal" to be awarded for 1951. It is interesting to note that in Mr. Hoffman Wood's Will, architectural scholarships are being awarded to cover architectural training of Yorkshire students of either sex and applications may be sent to W. H. Clarke & Co., Solicitors, 12, South Parade, Leeds, 1, by July 31, 1952.

Paint

HAVING devoted two recent issues to the Painting Code it seems desirable to discuss paint itself and the related British Standards.

The types of paint in general use, as may be seen from those listed in the code, have become very numerous and many of them are formulated to meet special conditions of application. An examination of the list of British Standards for pigments, paints and like materials shows that there are B.S. for most of the pigments and many other ingredient materials but few for the paints themselves; it is the last group which is of value to architects and builders. The quality of paint within a given type may vary much, not only in regard to the quality and nature of the constituents but also in regard to the actual process of manufacture. The method of specifying by standard formulations, as has been adopted in B.S. so far, cannot take full account of the process of manufacture but it may be applicable to some types such as normal oil gloss paints, primers and some types of water paints. Many paints, however, do not lend themselves to standardization by this method and what is needed by the architects and other users is a series of B.S. for paint based on performance requirements for various types of applications and surfaces although certain minimum limits for the ingredient materials might need to be given in addition to the performance alone. Many architects and even more local authority purchasers have said how useful they would find such a series. I am sure that during the last few years sufficient information has been accumulated in several places on which the necessary methods of test could be based on which performance standards could be prepared. There exist already many Government specifications containing tests which could be modified to provide for civilian needs and no doubt the better paint firms are already using methods which they have developed to test and check their own products. Could we not have the necessary co-operation through B.S.I. to make this knowledge available to all users? The specifications of performance ought to find favour with manufacturers in these difficult times as it would enable them to adjust their formulations according to the availability of materials, provided that a satisfactory performance is obtained. The objection to this step probably arises from the fact that many paint makers are not now employing adequately skilled chemists and do not

possess the necessary laboratory and apparatus; these makers do not perhaps appreciate that the building industry has become more scientifically knowledgeable and more interested in buying to known specifications. I have heard the view put forward that specifications are of no value if the user cannot test them; this is plain nonsense, as users buy many other products needing equally complicated tests and make very adequate arrangements for sufficient testing by skilled persons to ensure that makers are supplying what is ordered; moreover, makers should themselves be prepared to guarantee that their products could pass the test requirements as is customary for other building materials. There is a considerable number of independent testers who would very soon acquire any necessary additional apparatus if the B.S.I. produced the tests.

In my opinion after discussing the subject very widely there is an urgent need for British Standards for the following:—

1. Methods of test for paints of all types.
2. Minimum performance requirements based on the above tests for
 - (a) The four grades of gloss paint covered by Types 10, 11, 12 and 13 of CP.231.
 - (b) Undercoats for the above four types.
 - (c) Flat paint and flat enamel.
 - (d) Primers for woodwork (exterior and interior), metals, and various types of plaster.
 - (e) Cement paints.

The existing B.S. cover most of the raw materials. I gather that the standards for pigments and extenders have been under revision for some time and that the first of the revisions will soon appear. The only other B.S. covering the raw materials which needs revision to bring it into line with good commercial production is B.S. 245 for White Spirit, which sets a lower quality than need be.

In regard to the B.S. for finished paints, at least one group, namely, B.S.929, sets a level of quality based on available material some three or four years ago and needs revision very badly, as some paints supplied to its minimum requirements are very poor and consequently uneconomic at today's labour prices for its application. The material supply position is still bad and likely to remain so but over a relatively short period a slightly higher quality would be much more economic to the user. The finishing paints covered by B.S. 261 and others

in the same series set a reasonable level of quality for those users requiring oil gloss paints. It seems to me, therefore, that as soon as possible B.S.929 should be dropped and replaced by a revised B.S. 261 series including the necessary primers and undercoats now covered only in B.S.929. Certain of the B.S. for paints are quite satisfactory, such as B.S.1011 "Red lead primer for iron and steel," B.S.1336 for Knotting and B.S.1053 for Water Paints and Dis-tempers; by the way, this B.S. establishes definitions which should be adopted by all to avoid confusion.

I believe the B.S.256 series for varnishes also needs some revision to bring it up to date, but this is much less urgent than some of the other suggestions. In my view the need for B.S. for the hard gloss and enamel types is by far the most urgent matter.

Lastly a word about B.S. colours for paint. B.S.381C for gloss paint colours needs revision badly to provide for the wider range of decorative paints now being used. It contains many colours agreed for special uses which need to be retained but they should not be confused with colours for decoration. In my opinion the first step would be for this country to adopt the Munsell system which could be used widely for colour identification not only in the field of paint. The paint industry could then select a range of perhaps eighty colours and earmark a short range within this number for stock production to be held in paint merchants and retail shops, the remainder to be available on demand. I hope great care would be taken to select the stock production range of colours from those which may be formulated from the less costly pigments and from pigments reasonably fast to light. I believe the B.S.I. committee tried to follow this suggestion in its present range and it is one which I believe to be important. It is annoying to find a colour selected from a standard list is specially costly or fails badly soon after use. From a maker's angle a short stock range is an essential factor in economic production and merchants would have less stocking difficulties. No doubt they could do much to overcome this trouble if all makers would agree to charge the true costs of making up special colours, especially for deliveries of less than one gallon to a site.

One last request—can we have a B.S. for paint brushes which defines clearly the various grades to act as a buyers' guide.

DUTCH UNCLE

IN PARLIAMENT Sports Review

Metal Prices

Mr. Osborne asked the Secretary for Overseas Trade, as representing the Chancellor of the Duchy of Lancaster, why he was charging the British manufacturers £147 per ton for lead, £231 for copper, and £190 for zinc, when their overseas competitors can obtain these metals for £100, £196 and £156 a ton respectively. Mr. Henry Strauss, Parliamentary Secretary, Board of Trade, who replied, said that the Ministry of Materials selling prices for copper and lead were based on replacement costs. Neither metal was to be had in quantity by overseas buyers at the prices quoted by Mr. Osborne. The Ministry's zinc price was now being reviewed. The price of lead was reduced on May 15 to £131 per ton. (May 16.)

Export of Buildings

Mr. Baker asked the President of the Board of Trade to what extent, in view of the housing shortage, he intended to continue to allow the export of prefabricated houses. Mr. Henry Strauss said that the export of prefabricated buildings, including houses, had contributed substantially both to United Kingdom earnings and to the development of Commonwealth and Empire resources. In view of the serious position of the balance of payments, the Government would, as far as possible, continue to help the industry to maintain its valuable export trade. There was no reason to suppose that these exports would prejudice the housing drive. (May 13.)

Municipal Offices

Mr. Foot asked the Minister of Housing and Local Government to what extent he proposed to sanction loans for municipal offices during the quarter beginning March 31, 1952; how much would be the sum involved; and what local authorities would benefit. Mr. Marples, Parliamentary Secretary, stated that a figure could not be given in advance. Expenditure on new office building of all kinds was now severely restricted, and the Minister could only consider sanctioning loans for this purpose where the need was exceptionally urgent. (May 13.)

Mr. Foot also asked for details of the £223,104 for municipal offices issued as loans during the same quarter showing where these offices were being built; and how much of the money had been allocated to heavily bombed cities. Mr. Macmillan informed him that the total of £223,104 comprised loans of varying amounts for 44 different local authorities in England and Wales, including Plymouth, Southampton, Bristol and Walthamstow. Most of these loans were for the purchase of land or existing buildings, adaptations and office equipment, as distinct from new buildings. (May 13.)

Mr. Edward Evans asked the Minister of Works why a licence had been refused to the Bungay Town Sports Association to erect a grandstand when the materials were available, labour could be provided and the need was urgent; if he was aware that this refusal had caused financial hardship to the association; and, in view of the representations made to him by the urban district council and the association, he would now reverse his decision. Mr. Eccles replied that the department received many similar applications representing in total an appreciable call on the limited resources available for miscellaneous building work. He could not grant this licence until it was possible to do so for all similar cases. He was reviewing this policy. (May 13.)

Target Date

Mr. Arthur Lewis asked the Minister of Housing and Local Government if he would now state when he hoped to achieve his declared programme of 300,000 houses per year. Mr. Macmillan: "No, I will only say that we are on the way. The published figures show that in the first quarter of 1952, houses completed, houses under construction, and houses started were up 22 per cent, 15 per cent and 34 per cent respectively on the corresponding quarter of 1951." (May 13.)

Reopening of the Geffrye Museum

The Geffrye Museum, which has been closed for more than a year, was reopened yesterday. It will remain open from 10 a.m. to 5 p.m. on weekdays (except Mondays) and from 2 to 5 p.m. on Sundays. Admission is free.

The museum—which illustrates the development of the middle-class English home from 1600 to the present day—is housed in a block of 18th-century almshouses in Kingsland Road, Shoreditch. It was closed so that war-time damage to the walls and roof could be repaired. The opportunity has been taken to redecorate the building, to improve storage and staff accommodation, and to provide public cloakrooms. The work has been carried out for the L.C.C. at a cost of about £16,000. The architects for the scheme of repairs and improvements were Messrs. Goodhart-Rendel and Partners, the contract for the work being carried out by Yeomans and Partners, Ltd.

The Timber Situation

The Chairman of the Timber Development Association, Mr. G. B. Crow, speaking at the Dorchester Hotel on May 13, said: "In a Party Political broadcast to the nation 10 days ago, the Prime Minister stated that 'all the trade in timber is now in private hands.'"

The hardwood trade may import what it wishes from certain parts of the world, whilst from elsewhere it is restrained by

import licences from obtaining what it knows to be necessary for industry.

The plywood trade to obtain its import licences must first be prepared to purchase Government plywood stocks which, in a free market, it might have been reluctant to do.

The softwood trade is free to purchase all the future imports of the country, but it is to be limited in the volume of those imports. It is free to invest its money in softwood stocks, both by private imports and by purchases from Government holdings, but it has no control over the rate of disposal to consumers, who are still tightly restricted by licences. There is the freedom to buy dear at the risk of having to sell cheap.

That, in short, is the measure of our freedom. It is something less than that to which we aspire and which we regard as our rightful due.

In recent months, with a serious steel shortage, the Timber Development Association has pressed upon the Government the need to allow timber to help fill the gap between supply and demand for steel and other materials.

At times it seems that it is only the timber trade that knows how great is the common field within which timber, steel, aluminium and concrete can be used as alternatives; knowledge which may be shared by our competitors—but not by those who govern us.

We realize, as well as any, that currency difficulties have forced reductions of our national imports, but we believe that this cut has been applied blindly and without attempting to assess the balance of advantage between different raw materials. It is not sufficient to argue that steel has been purchased in America and Japan to aid our rearmament programme, when the steel of which we are so short is being used regularly in this country for purposes for which timber could substitute with advantage.

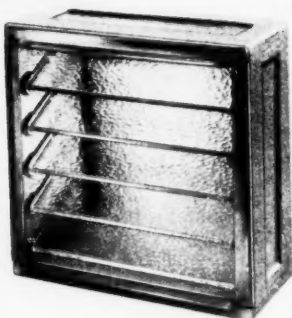
In 1948 we made our first formal attempt to set down the facts on substitution in a booklet "The Economics of Timber Substitution." The then President of the Board of Trade instituted a departmental enquiry and, finally, in 1951 announced in the House of Commons that the Government would be prepared, as far as it could, to substitute timber for particular types of steel as they become short in essential industry.

This policy was never implemented but upon the formation of a new Government, we returned to the attack, and after Lord Swinton had coupled the full restoration of private buying of softwood with a drastic restriction on the volume of imports, a new case was submitted.

At the Annual Dinner of the Timber Trade Federation in March, Lord Swinton announced that this case was to be considered by a committee under the chairmanship of Mr. Marples. I can now tell you that work is to proceed at once with a view to an early report on the possibility and desirability of substituting timber for steel and that the T.D.A. has been asked to assist in the investigation. The Government, of course, is not committed to any recommendations which may be made, but we have at long last seen a big step in the direction of a fair and impartial assessment of our claims. We feel confident that we can provide the tools and it only remains for the Government to do the job.

CORRECTION

In last week's article on the B.I.F., "Bolton Grate Co., Ltd.," should have read "Bolton Gate Co., Ltd."



STRUCTURE WINDOWS, GLAZING, ETC. A 87.

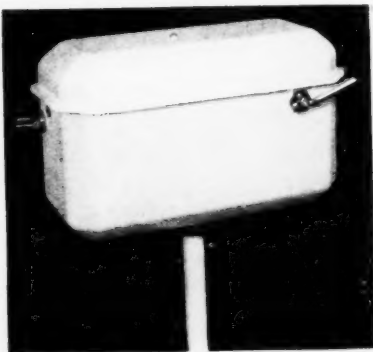
Recently added to the range of hollow glass blocks made by a well-known firm is this all-glass louvre ventilator block.

Dimensions are 7½ in x 7½ in x 3½ in deep.

This block matches existing glass blocks in size, and additions to the range in other sizes are on the way.

The louvres themselves are loose and slide into grooves in the block.

Supplies are said to be freely available through the usual trade channels.



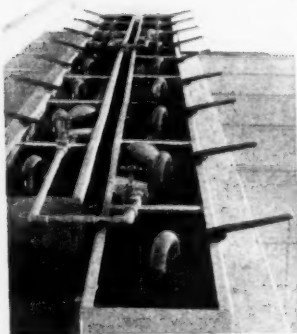
SERVICES PLUMBING B 47.

A low level vitreous enamelled seamless pressed steel flushing cistern, one of the latest models manufactured by the firm which pioneered this type of cistern.

Other models in the range are available with push button operation.

For use overseas the firm manufactures mosquito proof and frost proof types.

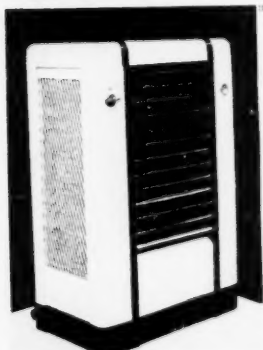
The cisterns are fitted with solid drawn copper syphon.



SERVICES PLUMBING B 48

A flushing trough system which combines from 3 to 30 units in one long trough and is designed particularly for schools, factories, etc., where peak demand can put an overload on normal systems.

Two features worth noting are first the simple method of jointing each section, and second the fact that the outlet is located so that a B.S. flush pipe with a 4½ in offset at the top can be used whether the pull is required at front or back.



SERVICES HEATING, ETC. B 320.

This recently developed gas-fired space heater is one of a range of domestic and industrial models.

In the past a drawback of some such heaters has been their appearance.

The photograph shows that this range has good looks and clean lines. The finish is in cream and black enamel.

The model illustrated has a rating of 30 cubic ft. per hour of 500 B.Th.U. gas.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.
Please mark the envelope MOSAICS.

INDUSTRIAL NOTES

The Minister of Works has been in consultation with the Cement Makers' Federation about the supply of cement in Scotland and on the North-East Coast, where there have been exceptional demands during the first few months of this year for defence and other purposes much in excess of the corresponding period of last year.

The shortage has to some extent been mitigated by imports from the Continent. Having regard to the fact that payments for imports from Europe are now, in effect, almost all in gold or dollars, it has been decided that no further imports shall be authorized.

The members of the Cement Makers' Federation have co-operated fully and actively, and are taking urgent steps to increase the supply of British cement despatched to Scotland and the North-East Coast.

Deliveries of cement from the works are now at record levels.

There is no reason to fear prolonged or widespread shortage in any part of the country provided that consumers, particularly in those districts which have recently experienced difficulty, co-operate by confining their immediate purchases to the amounts required for work actually in hand, and by ordering their future supplies well in advance.

The Ministry of Materials announces that from May 14, 1952, the price of imported good soft pig lead is decreased from £147 to £131 per ton delivered consumers' works.

Angus Cast-Stone Products Ltd. have taken over the former Pugeston Brickworks at Monroise. The 100ft and 64ft chimneys, landmarks of the plant for many years, were demolished by Royal Engineers units from Dundee on May 4. The premises are to be used for precast work in future.

The Royal Sanitary Institute has accepted an invitation from the Corporation of Hastings to hold the 1952 Health Congress in Hastings from Tuesday, April 28, to Friday, May 1, inclusive. Forty nations were represented at the 1952 Congress, which was attended by 2,140 experts on health. Amongst them were five delegates from the Soviet Union specially charged with the mission of investigating British public health methods.

Eastwoods Limited announce the following co-options to the Board: Lt.-Col. Sir Thomas Moore, C.B.E., M.P., as a Director, and Mr. B. H. Marriage as Sales Director of the Company.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

JOINTLESS FLOORING

By THE LIOTEX ASBESTOS FLOORING CO. LTD.

Prices and Samples on Request.

10/29 Jarrow Rd., London, S.E.16 Dept. A.B.,
Bermondsey 4341/2/3

MARLEY TILE FLOORING CONTRACTORS

Supplied and Laid in plain or mottled colours.

TILEART FLOORING CO. LTD.
364 CITY ROAD, E.C.1 Phone: TERMINUS 2678

ARCHITECTURAL PHOTOGRAPHY

by the specialist

EDGAR HYMAN

F.I.B.P. : F.R.P.S.

23 HARBOROUGH ROAD, LONDON, S.W.16.
Tel. 5788tham 6697

RINGMER BUILDING WORKS, LTD.

BUILDERS & CONTRACTORS
Joinery Specialists

RINGMER : LEWES : SUSSEX

Telephone: LEWES 300

QUANTITY SURVEYING

Postal Courses for R.I.B.A., I.A.A.S. and I.Q.S.
Exams. in all or any subject starting now. Tuition
by well qualified tutors under the direction of the
Principal, A. B. Waters, M.B.E., G.M., F.R.I.B.A.
Descriptive Booklet on request.

THE ELLIS SCHOOL
1630, OLD BROMPTON ROAD, LONDON, S.W.7
Phone: KEN 4477/8/9 and at Worcester

★ KETTON FREESTONE

for beauty
in building

dist. ibuted by—

THOS. W. WARD LTD.

ALBION WORKS SHEFFIELD

Phone: 26311 (22 lines) Grams: "Ketco"

"EXCAVATION SPECIALISTS"

COMPLETE RANGE
OF EARTH MOVING TACKLE
"CAUDLE"

OF
LAND GEAR
CO., LTD.,

BIRMINGHAM 26.

Telephone: STECHFORD 3011 Two Lines

BUILDING

ASHFORD (KENT) U.C. (a) 86 houses,
Great Burton Estate. (b) Council's Clerk,
Council Offices, Church Road. (c) 3gns.
(d) June 7.

BEXLEY B.C. (a) 60 dwellings, Bris-
towe Road Estate. (b) Borough Engineer,
West Lodge, Broadway, Bexleyheath. (c)
5gns. (e) June 7.

BILLINGHAM U.C. (a) (Contract A)
52 houses, (Contract B) 36 houses, (Con-
tract C) 18 houses, (Contract D) 8 houses
and (Contract E) 12 aged persons' bun-
galows. (b) Messrs. Kitching & Co., 21,
Albert Road, Middlesbrough. (c) 2gns,
cheque payable to Council. (e) May 27.

BROMSGROVE U.C. (a) 40 houses on
Section 6 of Charford Estate. (b) En-
gineer and Surveyor, Council House. (c)
3gns. (d) May 31.

BUXTON B.C. (a) 24 houses, Victoria
Park Estate (extension of Contract F).
(b) Borough Engineer, Town Hall. (c)
2gns. (e) May 30.

BURY-ST.-EDMUNDS B.C. (a) 24
houses in blocks and pairs on Mildenhall
Road Estate. (b) Borough Engineer,
Borough Offices. (c) 2gns. (e) June 4.

CAERNARVONSHIRE E.C. (a) Erection
and completion of 10 classrooms,
gymnasium and alterations to buildings at
Grammar School, Portmadoc. (b) Director
of Education, Castle Street, Caernar-
von. (c) 2gns. (d) May 31.

CRAWLEY DEVELOPMENT COR-
PORATION. (a) (1) 7 shops and 6
maisonettes, 6 garages, 11 houses, a block
of 6 flats and 6 bungalows, on West
Green Neighbourhood Centre; (2) 12
shops and 12 maisonettes, 12 garages, 2
houses, 11 houses, 2 bungalows and 3
flats on Northgate Neighbourhood Centre.
(b) Chief Architect, Broadfield. (d) May
24.

DARTFORD B.C. (a) (Contract 4J) 32
houses, 14 houses and 48 flats; (Contract
4L) 14 houses and 6 houses; site 4,
Temple Hill Neighbourhood Unit. (b)
Town Clerk, Town Clerk's Office, High
Street. (c) 2gns. (e) June 9.

DENBIGHSHIRE C.C. (a) (1) Pair of
houses at Llangollen; (2) house and office
at Cefn Mawr, nr. Wrexham; (3) house
and office at Chirk, nr. Wrexham; (4)
house and office at Llantysilio, nr. Wrex-
ham; (5) house and office at Rhosymedre,
nr. Wrexham; (6) house and office at
Vroncysyllte, nr. Wrexham, for police. (b)
County Architect, Grove Park, Wrexham.
(c) 3gns. each contract, cheque payable
to Council and crossed "Midland Bank
Limited." (d) May 24.

EAST SUFFOLK C.C. (a) 2 flats for
midwives at Lound, nr. Lowestoft. (b)
County Architect, County Hall, Ipswich.
(c) 2gns. (d) May 26. (e) June 20.

ESHER U.C. (a) (Contract No. 125), 36
flats, Faraday Road Estate, West Mole-
sey. (b) Engineer and Surveyor, Council
Offices. (c) 1gn. (e) June 13.

address it is the same as the locality
given in the heading, (c) deposit, (d)
last date for application, (e) last date
and time for submission of tenders. Full
details of contracts marked ★ are
given in the advertisement section.

ENGERT & ROLFE LTD INODOROUS FELTS FROM STOCK

LONDON E 14 R EAST 1441

EVANS LIFTS LTD

ABBAY LANE, LEICESTER.

London Office:

66 VICTORIA STREET, S.W.1.

ASPHALT WORK TO ALL B.S.

COVERITE
(ASPHALTERS) LTD
PALACE GATES STN. RZ2 (Broom's Park) 1574

Specify

CERRUX DECORATIVE PAINTS

CELLON LTD., KINGSTON-ON-THAMES



"FLEXTILE"

REG. TRADE MARK

A "Red Hand" Permanent
Roofing Felt

D. ANDERSON & SON LTD., Stratford, Manchester

QUALIFYING EXAMINATIONS

R.I.B.A. & T.P.I.

Courses of Instruction by
Correspondence and
Personal Tuition in Studio
including TESTIMONIES OF STUDY
AND PROFESSIONAL PRACTICE

C. W. BOX, F.R.I.B.A.

A.I.STRUCT.E., M.R.SAN.I.

115 Gower Street, W.C.1

Telephone: EUSton 3906

MINIMISE FIRE RISK WITH DURASTEEL STRUCTURAL FIRE PROTECTION

For Partitions, False Ceilings, Lift Shaft
Cladding, Fire Check Doors, etc., specify
DURASTEEL 3DF2 Composite Steel-&
Asbestos Sheeting. Send for data and test
details to manufacturers:—

DURASTEEL LTD., OLDFIELD LANE, GREENFORD,
MIDD. Tel. WAXLOW 1051 (P.B.X.)

HAMPSHIRE C.C. (a) Additional farm buildings at the County Farm Institute, Sparsholt. (b) Messrs. J. P. Sturge and Sons, 24, Berkeley Square, Bristol, 8. (c) 1gn payable to Council. (e) June 12.

HEANOR U.C. (a) 22 houses off Hardy Crescent, Codnor. (b) Engineer and Surveyor, Council Offices. (c) 3gns. (e) May 30.

HOVE B.C. (a) (Contract No. 1) 40 flats; (Contract No. 2) 32 flats; St. Helen's Estate. (b) Borough Surveyor, Town Hall. (c) 3gns each contract. (d) May 26. (e) June 16.

LEEDS C.C. (a) Superintendent's residence at Cottesley Hall Cemetery. (b) City Architect, Priestley House, Quarry Hill, 9. (c) £1. (e) June 13.

LIVERPOOL REGIONAL HOSPITAL BOARD. (a) Alterations to X-ray department at Walton Hospital. (b) Regional Architect, 88, Church Street, 1. (c) 2gns. (e) June 18.

LONDON — WALTHAMSTOW B.C. (a) (1) 18 flats, Brookfield Avenue, E.17. (2) 6 flats, Chingford Lane, E.17. (3) 11 flats, Wood Street, Chestnut Avenue, E.17. (b) Borough Architect, Town Hall, E.17. (c) 2gns, each scheme. (d) May 26. (e) (1) and (2) June 16 and (3) June 23.

LUDLOW R.C. (a) 10 houses at Knowbury, with roadworks, water mains, sewage disposal plant and sewers. (b) Engineer and Surveyor, Stone House, Corve Street. (c) 2gns.

MACHYNLETH R.C. (a) 20 houses, with roads, sewage disposal works, etc., at Esgairgeiliog. (b) Messrs. Nicol, Nicol and Thomas, 111, New Street, Birmingham, 2. (c) 2gns. (e) June 21.

MANCHESTER C.C. (a) Repair to a portion of the building fabric of the College of Technology. (b) Chief Engineer and Works Superintendent, College of Technology, Sackville Street, 1. (c) May 31.

MANCHESTER C.C. (a) Alterations and additions to Hawthornden, Palatine Road, West Didsbury, to form Home for Aged Persons. (b) City Architect, Town Hall. (c) 1gn. (e) June 11.

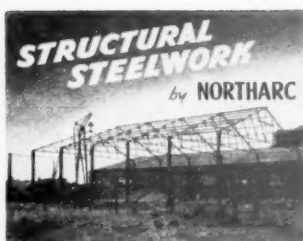
MARKET HARBOROUGH U.C. (a) (1) 12-storey block of 8 flats; (2) 16 semi-detached houses; Southern Estate. (b) Mr. Lyndon Rowen, 39, High Street. (c) £2. (e) June 9.

MERE AND TISBURY R.C. (a) 4 houses at Fonthill Gifford. (b) Messrs. Bothams and Brown, 32, Chipper Lane, Salisbury. (c) 2gns. (e) June 4.

MONTGOMERYSHIRE C.C. (a) Temporary fire station and house for police constable at Llanfyllin. (b) County Clerk, County Offices, Welshpool. (c) 2gns. (e) June 9.

PLOUGHLEY R.C. (a) 3 pairs of houses and 1 pair of houses at Kirtlington. (b) Engineer and Surveyor, Waverley House, Bicester. (c) £2. (e) June 11.

RAYLEIGH U.C. (a) 5 pairs of houses and 2 terraces of 4 houses, Pearsons Avenue site. (b) Council's Clerk, Council Offices, 28, High Street. (c) 3gns. (d) May 30. (e) June 23.



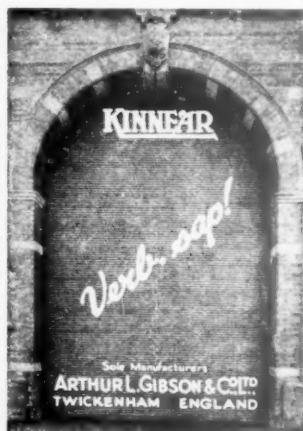
Roof Trusses up to 100'-0" Span
Steel Frameworks for Industrial and Municipal Projects, designed and fabricated to specific requirements

THE NORTHARC ORGANISATION
260 LANGHAM ROAD
TOTTENHAM, LONDON, N.15
PHONE: BOWES PARK 3157 & 1548

NEW FLOORS for OLD
Wood Floors Planed, Sanded,
Repaired and Treated
FLOOR RENOVATIONS Ltd
38 LAURISTON RD., E.9. Phone: AMH 1080
Sandpapering machines for hire

**YOU CAN
DEPEND ON**
Cementone
**COLOURS
HARDENERS
WATERPROOFERS
DECORATIVE FINISHES**

JOSEPH FREEMAN, SONS & CO., LTD.
LONDON, S.W.18. VANDYKE 2432



RYDE B.C. (a) Block of 6 houses and a block of 8 houses abutting to Jellicoe Road on Binstead Estate, and a block of 6 bungalows and a block of 3 houses at Riboleau Street. (b) Borough Surveyor, 5, Lind Street. (c) 2gns. each site. (e) May 31.

SAFFRON WALDEN R.C. (a) 10 houses at Stanstead. (b) Council's Clerk, Council Offices, Debden Road. (c) May 31.

ST. GERMAN'S R.C. (a) 6 houses at Cross, St. Dominic. (b) Council's Surveyor, "St. Germans," Lower Port View, Saltash. (c) 2gns. (e) June 4.

SCOTLAND — EDINBURGH. (a) Structural alterations at Victoria Royal Dispensary, Spittal Street (separate trades). (b) Acting Secretary, James Howie, Board's Office, City Hospital, Greenbank Drive, 10. (c) £1. (d) May 24.

SCOTLAND — NORTHERN REGIONAL HOSPITAL BOARD. (a) Out-patients' department, connecting corridor and entrance at Lewis Hospital, Stornoway. (b) Regional Board Architect, Northern Regional Hospital Board (Scotland), Raigmore Hospital, Inverness. (d) June 16.

SHIPSTON-ON-STOUR R.C. (a) 4 houses at Burmington. (b) Messrs. E. H. Earp and Badger, Scholars Lane, Stratford-on-Avon. (c) 2gns. (e) June 14.

STRETTFORD B.C. (a) 42 garages in 5 groups on various sites. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) June 9.

TETTENHALL U.C. (a) (Contract No. 16) 6 houses and 2 pairs of bungalows on Woodhouse Estate. (b) Engineer and Surveyor, Council Offices. (c) 3gns. (d) May 24.

WANTAGE U.C. (a) (1) Construction of roads and sewers, and (2) erection of 40 houses, Springfield Road site. (b) W. G. Stanbrook, 37a, Bartholomew Street, Newbury. (c) 2gns., cheque payable to Council. (e) May 31.

WISBECH B.C. (a) (Contract No. 67) 10 houses on Mount Pleasant Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) May 31.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BUILDING

CWMBRAN, S. WALES. (1) Construction of foundry, buildings, offices, etc., for Guest, Keen & Nettlefolds, Ltd. (3) Gee, Walker and Slater, Ltd., Park Lane, London, W.1, and Cwmbran. (4) £340,000.

SHEFFIELD CORPORATION. (1) 376 houses, 40 aged persons' flats. (2) Hackenthorpe Estate. (3) Direct Labour Department. (4) £555,536 and £42,174.

WANDSWORTH B.C. (1) 183 flats and nursery. (2) Clapham Crescent. (3) Trollope and Colls, Ltd., 41, Great Queen Street, London, W.C.2. (4) £448,988.

"CARLISLE" PLASTER "THISTLE"

FOR ALL PURPOSES
**HARDWALL, COMMON, SUPERFINE
BARIUM, KEENES, PARIAN, MASTIC CEMENT**
&c. &c.

SALES & SERVICE

**The Carlisle Plaster & Cement Co.
Thomas McGhie & Sons Ltd.
Cocklakes**

Telegrams : PLASTER, CARLISLE

Nr. Carlisle

Telephone : WETHERAL 345

PLANNING:

THE ARCHITECT'S HANDBOOK

6th Edition

By "E and O. E." (S. Rowland Pierce, F.R.I.B.A. DIST. T.P., Rome Scholar in Architecture, and Patrick Cutbush, A.R.I.B.A., A.A. DIP., A.I.L.A., R.I.B.A. Alfred Bossom Gold Medallist). This new edition has been thoroughly revised and has received substantial additions. It is a reference essential to all who plan and design buildings but is not intended as a treatise on the fundamental or academic principles of planning theory. The work gives essentials of plan types and the outlines of more important details (illustrated by over 600 figures) which affect three-dimensional planning.

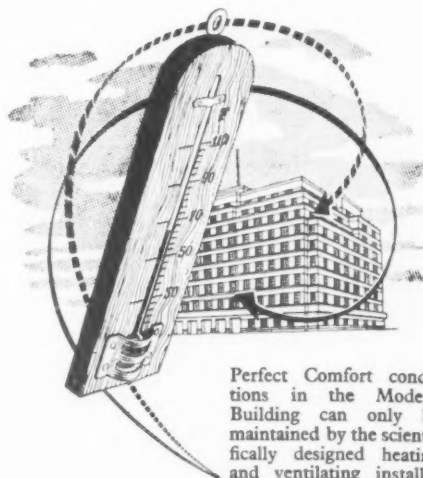
Contents include: Housing, The House (for Individual Clients), Flats, Small Flats, Schools, Technical Schools, Community Centres, Factory Buildings, Office Buildings, The Motor Vehicle, Shops and Stores, Municipal Buildings, Law Buildings, Museums and Art Galleries, Libraries, Fire Stations, Hospitals (General), Hospitals (Infectious Diseases), Clinics and Health Centres, Crematoria, Lavatories: Public and Communal, Covered Baths and Wash Houses, Open-Air Swimming Baths, Recreation, Sports Pavilions, Hotels, Public Houses, Holiday Hostels, Holiday Camps, Farm Buildings, Index.

21s. net. By post 22s. 5d.

(Overseas 22s. 6d.)

Published for "The Architect & Building News"

Obtainable at all booksellers or direct from:
DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1



Perfect Comfort conditions in the Modern Building can only be maintained by the scientifically designed heating and ventilating installation. For the most up-to-date equipment—

Consult

CANNONS

HEATING, VENTILATING & AIR CONDITIONING ENGINEERS, SPECIALISTS IN OIL, GAS & AUTOMATIC FIRING

181-183 NORTH END CROYDON, SURREY

Telephone : CROYDON 4535-6799

OFFICIAL ANNOUNCEMENTS • CONTRACTS • TENDERS

Rate 1/6 per line, minimum 3/-

Close for press 1st post Monday for following Thursday Issue

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

CITY OF BIRMINGHAM ARCHITECTURAL DEPARTMENT.

APPLICATIONS are invited for the following appointments:—

- (a) ARCHITECTURAL ASSISTANT—Grade A.P.T. VII—£735-£810.
- (b) ARCHITECTURAL ASSISTANT—Grade A.P.T. VII—£685-£760.

The Associateship R.I.B.A. or equivalent qualifications must be held and applicants must have had considerable experience in an Architect's office. The posts are supernumerary and subject to a medical examination, and the salary will be fixed in accordance with qualifications and experience.

Applications, endorsed with the heading of the post applied for, stating age, qualifications and experience, together with the names and addresses of two persons to whom reference can be made, should reach the undersigned not later than 7th June, 1952.

Canvassing disqualifies.

A. G. SHEPPARD FIDLER,

City Architect.

The Civic Centre, Birmingham, 1. [6397]

MINISTRY OF EDUCATION.

APPLICATIONS are invited for a post of ARCHITECT in the Architects' and Building Branch of the Ministry of Education. (The appointment will be temporary at first but there may be an opportunity for establishment later.) The successful applicant will be appointed to the Basic Grade or to the Main Grade depending on qualifications and experience.

Salary: Main Grade (men) £970 by 12 increments to £1,280; (women) £865 by 10 increments to £1,126.

Basic Grade (men) £628 by 12 increments to £970; (women) £628 by 10 increments to £865.

A special salary would have to be agreed if the successful candidate were under 25 years of age.

The work on which the successful applicant will be engaged consists of the study in principle and detail of the design and construction of educational buildings and of their service, fittings and furniture; and the application of the results to school projects. The work requires a knowledge of contemporary building methods; experience of development work and of educational buildings would be an advantage.

Applications, giving full particulars, including present emoluments and the names of two referees, should reach the Director of Establishments and Organisation, Ministry of Education (Curzon Street, London, W.1), not later than two weeks after the date of this advertisement. [6393]

URBAN DISTRICT COUNCIL OF CORBY.

APPOINTMENT OF QUANTITY SURVEYOR.

APPLICATIONS are invited for the above appointment in the department of the Engineer & Surveyor at a salary in accordance with A.P.T. Grade VI of the National Scale of Salaries (£595-£660 per annum).

Applicants must be thoroughly experienced in the preparation of Bills of Quantities, adjustment of variations and settlement of final accounts. Previous experience of substantial contracts for local authority housing is desirable, and preference will be given to applicants possessing the appropriate qualifications by examination.

The provisions of the Local Government Superannuation Act, 1937, will apply.

Housing accommodation will be made available to the successful candidate if married.

Application forms, to be obtained from the undersigned, should be completed and submitted not later than noon on Friday, 6th June, 1952.

G. B. BLACKALL,

Clerk of the Council.

Council Offices,

Corby.

Northants.

15th May, 1952. [6400]

PRESS NOTICE

For the issue of "The Architect and Building News" dated June 5th, classified advertisements must reach us by 1ST POST, FRIDAY, May 30th.

PUBLIC NOTICE

HERIOT-WATT COLLEGE, EDINBURGH.

DEPARTMENT OF BUILDING.

Head of Department—Norman C. Sidwell, B.Sc., A.R.I.C.S., M.I.Struct.E.
Session 1952-53 will commence on October 7th, 1952.

THE College provides a three years' full-time course for the award of the College Diploma and the Higher National Diploma in Building. This course is recognised by the Royal Institution of Chartered Surveyors as a suitable preparation for their First and Intermediate Examinations (Sub-Division 11).

Prospectus and further particulars on request:
HUGH B. NISBET,
Principal. [6372]

MISCELLANEOUS SECTION

RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies.

PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

OPPORTUNITY established London office for architect experienced in controlling staff and supervising large contracts. Salary according to experience.—Box 0048. [6383]

SENIOR architect required for London office of engineering organization, A.R.I.B.A. desirable, but not essential, provided applicant has extensive experience on design layout and detailing of wide range of industrial buildings associated with petroleum oil refineries; salary commensurate with qualifications and experience.—Apply in writing to Personnel Manager, Kellogg International Corporation, Stone House, Bishopsgate, London, E.C.2. [6380]

TWO RESIDENT ARCHITECTS required in the office of the Architect to the British Railways, Eastern Region. The successful applicants will be required to supervise contracts in the following areas:

- (1) Scunthorpe and Peterborough.
- (2) Ipswich and Bury St. Edmunds.

The appointments are temporary but the successful applicants would have the opportunity of applying for vacancies which occur on the permanent staff. Applicants should preferably be qualified and should have had experience of site supervision. Salary £575-£600 according to age, qualifications and experience. Free residential railway travelling facilities within certain limits and other reduced rate railway travelling facilities after qualifying period of service.—Applications, which should be in writing, should be addressed to the Civil Engineer, British Railways, King's Cross Station, London, N.1. [6390]

ARCHITECTURAL APPOINTMENTS VACANT—contd.

QUALIFIED Architect required for leading Nairobi office. Salary £720 p.a. with free passage out on a two-year initial contract.—Send brief personal and professional details to Overseas Technical Service, 5, Welldon Crescent, Harrow, quoting reference OSS.17/3. [6398]

NAIROBI—Architectural Assistant, qualified or Final R.I.B.A. standard with several years' sound experience. Salary £750-£100-£950 on three-year contract, passages paid each way.—Send brief personal and professional details to Overseas Technical Service, 5, Welldon Crescent, Harrow, quoting reference OSS.15/2. [6399]

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

COLLINS, MELVIN & PARTNERS require Junior staff with office experience capable working drawings. Salary £350-£450 per annum, 5-day week. Telephone Museum 0883. [6384]

ARCHITECTURAL draughtsman required London office petroleum and chemical plant engineering organization; experience in industrial building and detailing with thorough knowledge of building construction.—Apply in writing Box 0021. [6381]

SERVICES OFFERED

SURVEYS, levels, bldg. contracts and drawings of every description, efficiency and speed.—Adams, 14, Curstow St., E.C.4. Hol. 0677. [6371]

THATCHING and reedclaying contracts undertaken by experts.—J. G. Cowell, Soham, Ely, Cambs. [0112]

DRAWINGS, surveys, etc., speedily executed by London architects with offices and staff. Box 8015. [0119]

SCULPTOR, figure specialist, experienced architectural carver, economical, reliable artist-craftsman.—Proctor, 20, Geneva Rd., Darlington. [6350]

BUILDING Surveyor.—Private services for War Damage, Compensation and Dilapidation Claims. Drawings prepared, Surveys and Reports, etc. Immediate attention to enquiries.—Box 0049. [6387]

A SPECIAL service to architects, contractors or the profession: war damage claims prepared, negotiated and assessed by experts; site measuring, drawings, estimates and specifications prepared. Architectural Surveyor, 71, Queen's Court, W.2. [6401]

FOR SALE

ALL Mouldings, Plain and Embossed, and Embossed ornaments. Numerous designs.—Dareve's Moulding Mills, Ltd., 60, Powall Rd., Dalton, E.B. [0086]

FLOORING blocks, kiln dried, 9in x 2 1/2in x 1/2in nominal in chestnut, at 20s per yard laid measure, delivered free, samples on request.—F. Jones & Co., Capworth St., London, E.10. Tel. Ley. 3374-5. [6346]

PLANT FOR HIRE

DRAGON PLANT HIRE Ltd. Bulldozers; Trenchers; Excavators; Rollers; Chasidexes; Compressors, mixers, etc.—Guildford (01636) Surrey. [6382]

PLANT FOR SALE

CAST-IRON Pipes—Jennings Foundry (Seaham), Ltd., Seaham, Co. Durham, offer excellent delivery of Flanged Pipes and Fittings, 4in, 6in, 8in, 10in and 12in bores. [6395]

MOBILE Air Compressor for sale, Armstrong-Whitworth, 3 take-offs, direct coupled to Dorman petrol engine, 100 c.f.m. at 100 p.s.i. Dennis lorry chassis with enclosed cab. Photo—F. J. Edwards, Ltd., 359, Euston Rd., London, N.W.1. Euston 4681. [6392]

CAST IRON GUTTERS. Enquiries invited for 8in, 9in, 10in, 12in, 15in, 16in, 18in, 20in and 24in wide VALLEY, BOUNDARY WALL, BOX, MOULDED, and HALF-ROUND PATTERNS. Delivery POSSIBLY FROM STOCK or 2 to 4 weeks.—HILL'S BROS., 40, Queen Victoria St., London, E.C.4. EST. 1932. CITY 3094. [6402]

FOR sale, steel picket posts, overall length 2ft 3in, weight 6lb each, made from 1½in. "T" flat top, pointed base; steel earth pipes, 1in x 1in wall tubes, lengths 3ft, base pointed, with open top and screwing wing nut, some even perforations; mixed rod cobbles, rounds, squares and ovals, roughly coiled, hard soft, ½in to 1in; black and galvanized wire shorts, in coils and rod form, gauges 5 to 18, hard quality, second-hand heavy compound girders, comprising 18in flanges by webs 3ft 4in, 3ft 9in, 2ft 1in, 3ft 7in, strong re-usable lengths 20-55ft.—E. Hind (South Bank), Ltd., Imperial Works, South Bank Tees, Yorkshire, South Bank 58224 5 6 7. [6403]

BUSINESS & PROPERTY

UPPER NORWOOD—Fhld. res., completely modernised and redecd., 3 spac. bedrms., bathrm., panelled bath, basin, multipoint, 3 pleasant recep., breakfst. rm and kit.; nice garden; £1,750.—Ellis Copp, 210, Upper Richmond Rd., S.W.15. Putney 4513. [6396]

TAYMOUNT Rise, Forest Hill, S.E.23.—Large detached, freehold, flat-converted (eight) House, produced £360 p.a. net, surrounded by blocks of modern flats. Development on 1 acre adjoining land for 12 further s.c. flats provisionally permitted by L.C.C. Price £7,000 or offer.—Bristows, 2, Lynette Ave., S.W.4. [6394]

BUILDING SITES

DEAD ripe building land, approved for 16 semi-detached; main services; near Maidenhead; offers invited for block.—Apply Weaver, "Les Vosges," Upton Park, Slough. [6356]

TRADE CATALOGUES

COLIN LAIRD, A.R.I.B.A., Dip. Arch., is opening a practice in Trinidad, British West Indies, where he will be pleased to receive trade catalogues and samples at the following address: c/o Pereira, 40, Ellerslie Park, Port-of-Spain, Trinidad, B.W.I. [6404]

NISSEN HUTS, ETC.

BUILDINGS.

NISSEN type, all sizes, covered new or second-hand sheets, from 16ft to 91ft wide, in any length. Delivery ex stock.

WESCOL CONSTRUCTION CO., QUEENSBURY, BRADFORD. Tel. Queensbury 3292. [0117]

NISSEN and ROMNEY BUILDINGS all spans 16ft and up.

SECTIONAL TIMBER HUTMENTS

CONTRACTORS TOOL BOXES, SIGNS, ETC. WILKINSON INDUSTRIAL SUPPLIES, LTD., Imperial Buildings, Cross Addy Street, SHEFFIELD, 6. Telephones: 22327/22328. [6340]

RECONDITIONED ex-Army huts and manufactured buildings, timber, asbestos, Nissen type, hall type, etc., all sizes and prices.—Write, call or telephone Universal Supplies (Belvedere), Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. Erith 2948. [0120]

ROMNEY HUT (reconditioned), Tubular Framed, 96ft long x 35ft wide x 17ft high. Large Industrial Doors and Wicket Doors each end. Complete with Sheets and Bolts, ready for erection. Two Window Lights in each bay. Seen at—A. J. PHILLIPS & CO., BELMONT ROAD, HEREFORD. Phone 4693. [6391]

RIBA INTER, FINAL AND SPECIAL FINAL
Postal Courses starting now in all or any subject including Design and Professional Practice.
THE ELLIS SCHOOL
Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.
1030, OLD BRUMPTON ROAD, LONDON, S.W.7
Phone: KEN 4477/8/9 and at Worcester

ENGERT & ROLFE LTD
ASPHALTE WORK
LONDON E 14 EASI 1441

London's Finest new & secondhand Value ARCHITECTS' PLAN CHESTS
Steel & Wood Office Furniture
Filing Cabinets
Safes Chairs etc.
M. MARGOLIS
378-380 EUSTON ROAD LONDON N.W.1 Phone EUS 1325

ARCHITECTURE AS A CAREER

A Practical Handbook for Students

By MAURICE E. TAYLOR, M.T.P.I., A.R.I.B.A., F.I.L.A., F.R.I.A.S., F.S.A. SCOT., R.I.B.A. DIST. T.P., A.A. DIP. OF PLANNING. Offers practical, comprehensive and up-to-date information on every aspect of the subject, and discusses many problems the intending architect is likely to encounter. The various methods of approach to the architectural profession, regulations and documents concerning the most important R.I.B.A. examinations, and the many scholarships and prizes open to students are all described in detail. This book, published for *The Architect & Building News*, will prove an invaluable guide to all who would enter the profession.

10s. 6d. net. By post 10s. 11d.

Obtainable at all booksellers or from:

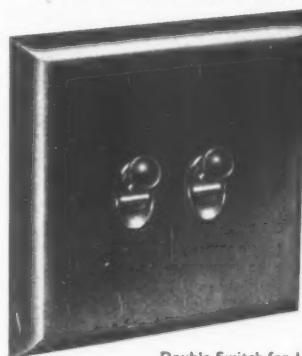
THE PUBLISHING DEPT., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1

ARCHITECTS AND BUILDERS ARE INVITED TO WRITE FOR OUR BROCHURE CONTAINING FULL SIZE ILLUSTRATIONS OF WIREWORK PATTERNS

WIREWORK
METAL LATTICE WOVEN WIRE

F. W. POTTER & SOAR LTD.
PHIPP STREET LONDON E.C.2
Bishopsgate 2177 (3 lines)

'I've seen no finer switch for housing'
-AN ARCHITECT'S COMMENT



No. 123

Double Switch for 1-gang box

NEW DAY

ELECTRICAL ACCESSORIES LTD.

136-8 Mary St., Birmingham, 12. Tel: Calthorpe 2621

POST-WAR REBUILDING

**PORTLAND STONE
MONKS PARK STONE****THE BATH & PORTLAND STONE FIRMS LTD.**

Head Office :
BATH
Tel.: 3248-9

PORTLAND
Tel.: 3113

LONDON OFFICE:
Grosvenor Gardens House, S.W.1
Tel.: VICTORIA 9182-3

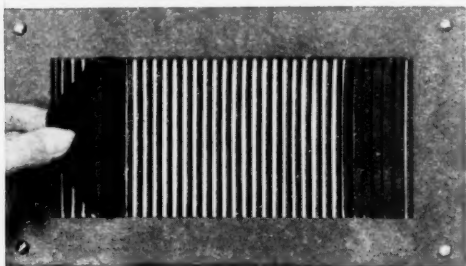
ENGLISH TIMBERS

for Building and Joinery Trades, Oak Planks for Cills, Half-Timbering, or scantling to size.

Architects' designs for Panelling and exclusive furniture faithfully interpreted.
**GATES AND OAK DOORS
A SPECIALITY**

Seasoned quartered boards for Flooring, Panelling, etc. Machining done and Joinery manufactured for the trade. Gates and Fencing. Established 1884

WYCKHAM BLACKWELL Ltd.
Hampton-in-Arden, BIRMINGHAM
Telephone: HAMPTON-IN-ARDEN 3

★ **the obvious answer to
PLANNED AIR DISTRIBUTION**

Planair Grille with vertical louvers. Also available with horizontal louvers. Over 400 sizes manufactured.

★ **specify PLANNAIR grilles . . .**
(TRADE MARK)

Planned Air Distribution by using "PLANNAIR" Grilles with fully adjustable face louvers, giving an angle of air-spread up to 120° in either vertical or horizontal planes. Grilles can be provided with single flap dampers or alternatively with multi-blade dampers.

The latter is to be recommended for all Grilles used for Air Supply where volume control is essential. Over 400 sizes of Grilles are available in our range, giving free areas of up to 80% of grille surface.

Grilles with multiblade shutters are also made for remote control.

Write for full details

CAMACK BROWNE LTD.
140 PARK LANE • LONDON • W.1

**The Unit
that Completes the Picture...**

Designed to cook for 6-8 persons, it is as efficient for casual cooking as for family-sized dinners. It can be supplied with a high-pressure boiler to give an abundance of hot water in bathroom and kitchen. The open fire door provides the luxury and comfort of an open fireplace. Amazingly easy to clean and to keep clean—there are no protruding parts, the oven doors have concealed hinges and recessed handles. The towel rail is chrome plated and there are NO oven flues to clean.

YOU CANNOT DO BETTER THAN SPECIFY

★ **Facts and Figures**
Leaflet supplied on request from Dept. A.B.

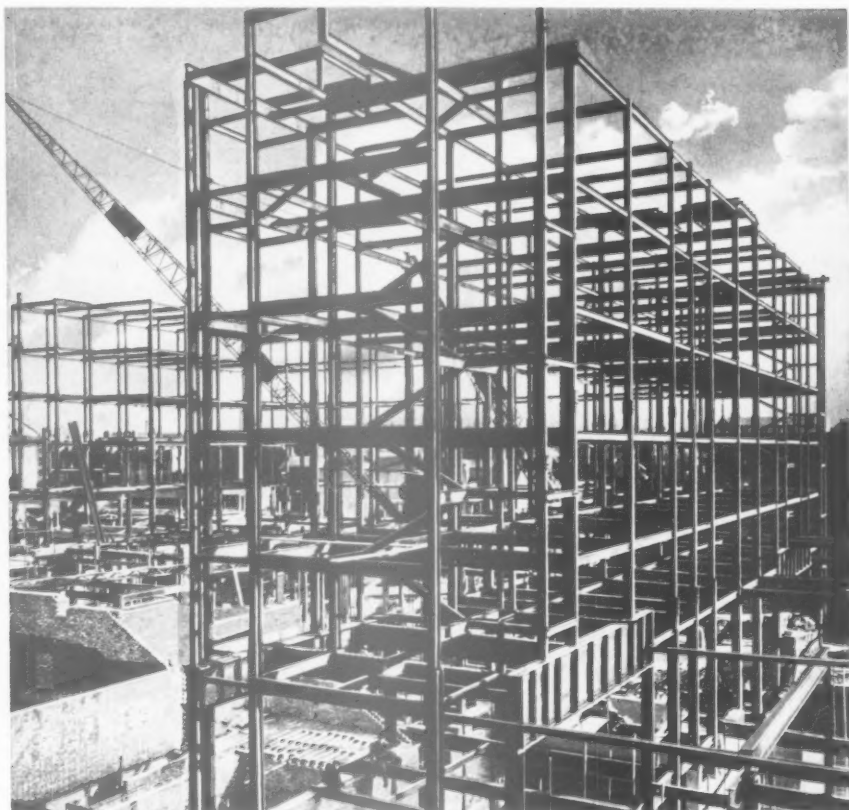
**INDEX TO ADVERTISERS**

Official Notices, Tenders, Auction, Legal and Miscellaneous Appointments on pages 28 and 29

Acrow (Engineers), Ltd.	12	Cellon, Ltd.	25	Hope, Henry, & Sons, Ltd.	21	Pilkington Bros., Ltd.	9
Adshead, Ratcliffe Co., Ltd.	10	Celotex, Ltd.	18	Hyman, F.R.P.S., Edgar	25	Potter, F. W., & Soar, Ltd.	29
Anderson, D., & Son, Ltd.	25	Coverite (Asphalters), Ltd.	25	Jones & Broadbent, Ltd.	20	Ringmer Building Works, Ltd.	25
Bath & Portland Stone Firms, Ltd.	30	Dawnays, Ltd.	Inside Back Cover	Kinnear Shutters	26	Rubert Co., Ltd., The	13
Blackwell, Wyckham	30	Dunastee, Ltd.	25	Land Gear Co., Ltd.	25	Sage, Fredk., & Co., Ltd.	22
Bolton Gate Co., Ltd.	17	Edison Swan Electric Co., Ltd.	The	Lane & Girvan, Ltd.	30	Sealanco (St. Helens), Ltd.	7
Box, C. W.	25	Ellis School, The	25, 29	Liotea Asbestos Flooring Co.	25	Solignum, Ltd.	12
Brady, G. & Co., Ltd.	25	Engert & Rolfe, Ltd.	25, 29	Lister, R. A., & Co., Ltd.	16	Southern Forge, Ltd.	24
Bratt Colbran, Ltd.	8	Evans Lifts, Ltd.	25	McCall & Co. (Sheffield), Ltd.	19	Spelthorne Metals, Ltd.	14
British Reinforced Concrete Engineering Co., Ltd.	The Outside Back Cover	Finlock Gutters, Ltd.	20	Margolis, M.	29	Steel Bracketing & Lathing, Ltd.	6
Callow Rock Lime Co., Ltd.	The	Floor Renovations, Ltd.	26	Mewis, G. E., Ltd.	20	Sugg, Wm., & Co., Ltd.	14
Camack Browne, Ltd.	30	Freeman, Joseph, Sons & Co., Ltd.	26	New Day Electrical Accessories, Ltd.	29	Tileart Flooring Co.	25
Cannon, W. G., & Sons, Ltd.	27	General Electric Co., Ltd., The	6	Newton Chambers & Co., Ltd.	23	Turner, Charles, & Son, Ltd.	8
Cape Asbestos Co., Ltd.	5	Gibson, Arthur L., & Co., Ltd.	26	North British Rubber Co., Ltd., The	4	Ward, Thomas W., Ltd.	25
Carlisle Plaster & Cement Co., Ltd.	27	Harvey, G. A., & Co. (London), Ltd.	10	Northern Organisation	26	Warry Patent Building Equipment Co., Ltd.	2, 1
				Nuralite Sales Limited	11	Williams & Williams, Ltd.	2, 1

Printed in Great Britain for the publishers, LITTLE AND SONS LTD., Dorset House, Stamford Street, London, S.E.1, by CORNWALL PRESS LTD., Paris Garden, Stamford Street, London, S.E.1.

STEELWORK



ROYAL SAILORS' HOME CLUB, PORTSMOUTH
Architects, Messrs A E Cogswell & Sons

DAWNAYS LIMITED

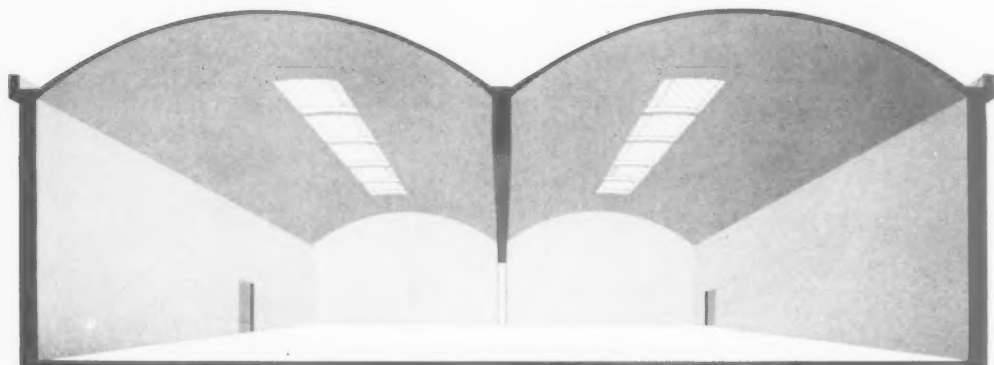
BRIDGE AND STRUCTURAL ENGINEERS

14858-7015 - STEELWORKS RD., LONDON, S.W.11 Telephone BATTERSEA 255

King's Cross Works SWANSEA 310	East Docks Works CARDIFF 287	100, Victoria St., London S.W.1 VICTORIA 1541	Bridge Rd. Works WELWYN GDN 240	Thames Works NORWICH
27 Waterloo Road SOUTHAMPTON 349	100, High Street PETERBOROUGH 457	152, Prince Avenue, HULL HULL, CENTRAL 8161	22 High Street ROMFORD 2106	7 The Close NORWICH 23141

Capital and Cheques - "DAWNAYS, LONDON" - Cash, Banking & Draft

BARREL VAULTING



for uninterrupted floor space

BRC

SHELL CONCRETE CONSTRUCTION

THE BRITISH REINFORCED CONCRETE ENGINEERING CO. LTD., STAFFORD
London, Birmingham, Bristol, Leeds, Leicester, Manchester, Newcastle, Sheffield, Cardiff, Glasgow, Dublin, Belfast